THE

Chicago Medical Journal

AND

EXAMINER.

VOL. XXXVI.—JANUARY, 1878.—NO. 1.

Original Communications.

THE PATHOLOGICAL TRANSACTIONS OF THE CHICAGO MEDICAL SOCIETY.

EDITED BY DR. I. N. DANFORTH.

I.

SOME OBSERVATIONS ON THE CLINICAL AND PATHOLOGICAL DISTINCTIONS BETWEEN PHTHISIS AND TUBERCULOSIS. BY DR. WM. T. BELFIELD, House Surgeon, Cook County Hospital.

That phthisis and tuberculosis are clinically and pathologically distinct, receives general assent, if I mistake not, in Germany. In France, the recent investigations of Charcot, though not yet confirmed, have, by the sheer weight of that illustrious name, shaken the Gallic faith in the same creed. In the United States the great majority of native-born professional men reject the duality of the diseases. It is my purpose in this paper, not to discuss one or the other theory, but simply to present some observations made in the wards of the County Hospital, which seem to me to argue duality in both clinical history and pathology.

I present, first, cases of acute tuberculosis, which embody four facts of interest:

1*st.* That the constitutional symptoms, which indicate grave disturbance, are disproportionate to the physical signs, which, alone, would suggest a trifling lesion.

2*nd.* That the accompanying fever is of the continued type, the thermometer showing but little variation, morning or evening.

3*rd.* That the tuberculosis follows, at a greater or less interval, a local inflammation, whose products have undergone degenerative changes.

4*th.* That the characteristic lesion is the production of a neoplasm without, necessarily, subsequent disintegration of the lung tissue.

CASE I.—Frank B., aged 24, a German carpenter, was admitted to the hospital March 12, 1877. He was greatly emaciated and very feeble; exhibited a marked febrile action — pulse 120, temperature 104, respiration 52. There was marked dyspnœa and cyanosis, the blueness being very evident even under the nails; he had a constant cough and profuse whitish expectoration. So precious was his scanty breath, that he could scarcely tell us the following history.

There was no record of consumption in his family. His own health had been excellent until March, 1876, when he began to suffer from loss of appetite and great pain in the abdomen. In a few weeks there appeared several tumors, which could be plainly felt in the umbilical region. During the summer of 1876 he regained fair health, though the tumors never decreased in size. His health remained good until about January 1, 1877, when it declined; had pain in his chest; cough; expectoration of white, frothy sputum; shortness of breath; fever; began to lose flesh and strength. His illness, while steadily increasing, had been especially aggravated during the three weeks prior to admission.

On physical examination, we found the form and movements of the chest and the percussion resonance normal; exaggerated breathing, dry and moist râles over the entire chest. There was nowhere any evidence of pulmonary consolidation.

During his stay in the hospital, the prominent features of his

case remained unchanged. His pulse, temperature and respirations showed but slight variation—morning or evening. The extreme dyspnœa and cyanosis persisted until death, which occurred two days after admission.

An examination was made ten hours after death. The two layers of pleura were adherent throughout. Each lung was thickly studded with miliary tubercles, evenly disseminated from apex to base. There was nowhere any sign of recent or ancient consolidation or destruction of lung-tissue. Many of the mesenteric glands were much enlarged and caseous. One aggregation of them constituted a tumor as large as an orange, and there were several smaller tumors of similar composition. The other organs appeared normal.

CASE II.—J. K., an English carpenter, aged 52, was admitted August 20, 1877, and gave the following history: Had no hereditary taint; had always enjoyed excellent health. On the 20th of April last he had suffered a thorough drenching. Next day he had a chilly feeling, fever, slight cough and sharp pain in left side. In a couple of weeks, however, his symptoms subsided, though he still remained weak. This was his condition until four weeks before admission, when he became feverish and short of breath; his general health declined, and he took to his bed, thinking that he was suffering from asthma.

On admission, he was quite emaciated, and presented the usual symptoms of a febrile condition; pulse 136; temperature 102 (evening); respirations 48. Found evidences of large effusion into left pleural sac, and compression of left lung; exaggerated breathing on the right side. On the next day (August 21) 60 ounces of straw-colored liquid were withdrawn by means of the aspirator. Patient at once expressed great relief; his respirations fell from 48 to 16 per minute; his temperature next morning was only 99½°. On August 23, however, his pulse was 126, temperature 103, respirations 26, and he was suffering considerable dyspnœa. Notwithstanding the free use of stimulants, he steadily failed, and died August 29. During the four days preceding his death, his pulse ranged from 112 to 140, his respirations from 26 to 34; his temperature averaged in the morning 103½°, in the evening 101°.

An examination was made 12 hours after death. The left lung was found crowded into the upper fourth of the left thorax; the lower three-fourths of the cavity was converted into a shut sac by means of a pseudo-membranous exudate which lined the thoracic walls and was thence reflected on to the lower surface of the compressed lung above and on to the upper surface of the diaphragm below. Within this sac were about 40 ounces of pale liquid. Both lungs were thickly and uniformly studded with miliary tubercles. Other organs about normal.

CASE III.—Was mentioned by Dr. Meyer in the CHICAGO MEDICAL JOURNAL AND EXAMINER for April, 1877.

E. L., a Norwegian silversmith, about 26 years old, was admitted December 16, 1876. A few days before his death, the patient, while delirious, destroyed the record of his case. Hence only the general facts of his history can be given.

He had pleurisy some months previously, and, on admission, his right chest presented the physical signs of hydrothorax and of firm pleuritic adhesions. Yet his symptoms indicated more lesions than were accounted for by the physical signs; he had rapid breathing, dyspnœa, cyanosis and pain in the chest. Early in January he became delirious, his delirium presenting a quiet and even melancholy, rather than a violent aspect. During five weeks his symptoms were gradually aggravated, but his physical signs showed little change. Death occurred February 17, 1877.

An examination, made six hours post mortem, showed about three quarts of light yellow liquid in the right pleural sac; the pleura was much thickened and presented several strong bands of adhesion. The right lung was compressed to about one-third its normal size, and thickly studded, from apex to base, with miliary tubercles; there was a small cavity in its apex.

On the left side, the two layers of pleura were adherent throughout; the left lung also was completely filled with miliary tubercles; there were no signs of consolidation in either lung. The membranes of the brain were greatly congested; there was a slight serous effusion into the ventricles. There was also found a deposit of semi-transparent, grey tubercles along the course of the vessels, especially on the convex surface of the hemispheres; a similar deposit, slight in amount, at the base; vascular turgescence of the cerebral tissues.

CASE IV.—Mary N., an Irish domestic, aged 50, was admitted May 23, 1877. Her health had been generally good, though for 20 years she had been much addicted to drink. Three months previous to admission, her abdomen had begun to swell, and had steadily increased in size; it had been the seat of considerable pain and tenderness. Her health had gradually failed. During her two months' sojourn in the hospital, she was tapped three times; the liver dullness was found to be less extensive than in health.

An examination made eight hours after death showed between the two layers on the right side firm adhesions which had undergone calcareous degeneration over a considerable space. The peritoneum was thickly and uniformly studded throughout with miliary tubercles; there were many adhesions among the folds of intestine. The liver was very small and very tough.

I present next three cases of acute phthisis, exemplifying four points of interest and of distinction from those just related:

1*st*. That the constitutional symptoms and physical signs accord in indicating the gravity of the affection.

2*nd*. That the accompanying fever is of a *remittent* type, with marked rise of temperature in the evening.

3*rd*. That the disease cannot be constantly nor uniformly associated with a pre-existing lesion.

4*th*. That the characteristic lesion is disintegration of lung-tissue.

CASE V.—J. B., a colored cook, 36 years of age, entered the hospital September 18, 1877. His health had been uniformly excellent, except that since February last he had had almost continuously a slight cough and expectoration. In April he was treated in the hospital for intermittent fever. At this time his lung sounds were found to be normal.

Ten days before admission his usually slight cough became suddenly much aggravated; he became very short of breath; had severe pain in the left side.

On admission he was well nourished; exhibited a high febrile action; pulse 116; temperature 103¾; respirations 32. The physical signs were dullness, bronchial breathing, and bronchophony—plainly indicating complete solidification of the upper lobe

of the left lung. For several days the disease presented the usual symptoms of pneumonia, except that at no time was the sputum observed to be rusty. Yet resolution did not occur at the usual time; the temperature remained high, and on September 28 the discovery of elastic fibres in the sputum and of cracked-pot resonance and cavernous breathing, announced the disintegration of the lung.

Since that time he has grown gradually but certainly weaker; the physical signs indicate a progressive destruction of lung-tissue. His temperature has shown the characteristic diurnal variation of acute phthisis — averaging in the morning 99.9°, in the evening 103.1° — an average rise of 3.2° Fahrenheit.

CASE VI.—J. G., an Irish laborer, aged 26 years, was admitted August 15, 1877. There was no record of consumption in his family. His own health had been excellent until January, 1877, when he took a severe cold, and subsequently suffered, for several months, from constant cough with yellowish or whitish expectoration. Had been working steadily during the spring and summer.

A few days before admission he had pain in his left side, and became quite feverish. We found him poorly-nourished and exhibiting a febrile action — pulse 120; temperature 101¾; respirations 48. Over the upper lobe of the left lung were found some loss of motion; slight dullness; broncho-vesicular breathing and crepitant râles.

During the next ten days he presented most of the signs of croupous pneumonia; his pulse ranged from 96 to 144; his temperature from 101¼ to 103½; his respirations averaged about 52. (On the 18th, the breathing had become intensely bronchial; on the 19th, moist râles were audible; on the 20th, the sputum was first observed to be of rusty color.) During the next two weeks the patient presented not the usual signs of resolving pneumonia, but continued dullness and bronchial breathing; moist râles, increasing in size and number; a temperature averaging over 101°; respirations about 45. On September 18, cavernous breathing and cracked-pot resonance were heard below the left clavicle; and on the same day the destruction of lung-tissue was confirmed by the discovery of elastic fibres in the sputum.

From that time his general condition grew gradually worse; the physical signs indicated a progressive destruction of the lung, soon including the other lung also.

His morning temperature averaged 99.6°, his evening temperature 101.3°, an average evening increase of 1.7°.

On October 6th patient left the hospital by his own desire.

CASE VII.—Geo. W., an American merchant, aged 27, was admitted Oct. 17, 1877. There is no record of consumption or other hereditary disease in his family history. His own health has been excellent; he never had any lung trouble, nor even an obstinate cough, until July, 1877; at that time he took cold, and for three weeks had a violent cough and profuse whitish expectoration. These subsided in August. On September 1, he took cold again, while on a lake steamer; had a violent cough; his sputum was profuse and yellow, and often contained a little blood; had frequent chills; cold sweats every night; lost flesh very rapidly, his weight having been reduced from 172 to 135 pounds in five weeks.

On admission, patient was much emaciated; temperature, 103¼; found complete solidification of upper lobe of right lung, except just below second rib, where there was a large cavity. His subsequent history has been that of advanced consumption. A noticeable feature is the marked evening rise of temperature. The average morning temperature from the 17th to the 31st of October, inclusive, was 99.3°; the evening temperature during the same time averaged 103.8°, an average rise of 4.5° F.

These cases are examples of the fact that acute pulmonary tuberculosis is distinct in clinical history and pathology from acute pulmonary phthisis.

Clinically, we observe, first, that in acute tuberculosis there is disproportion, in acute phthisis harmony, between the indications furnished by the constitutional symptoms and those suggested by the physical signs.

Second, that in tuberculosis the fever is of the continued type, the temperature being, if not uniform, higher in the morning, and *always* above the normal.

Pathologically, we note in tuberculosis the pre-existence of an inflammatory product in a state of degeneration; while in phthisis

the inflammation originates *de novo*, by some impression made upon the system from without.

Second, that in tuberculosis the inflammatory process does not, while in phthisis it does, necessarily result in destruction of the pulmonary structure.

In the cases of tuberculosis presented, the degenerated inflammatory products were located either in the mesentery or in the pleural sac. Yet metamorphosed products of inflammation are found in neither of these localities nearly so frequently as in the air-cells of the lungs. It is estimated that one death in six, the world over, is caused by consumption, in the broadest sense of that term. It is further computed that in four-fifths of these cases the initial lesion was a catarrh, either of the bronchi or of the lungs — that is, was an idiopathic inflammation ; and it is the caseous degeneration and disintegration of the inflammatory products of this catarrh that constitute the consumption. Hence, one individual in eight, on the average, has caseous masses in his lungs, sooner or later in his lifetime. Therefore we would expect, *a priori*, that a large majority of the observed cases of tuberculosis proper would occur in phthisical patients. The converse of this proposition would also seem reasonable — namely, that the caseous masses in phthisical lungs frequently give rise to the infection which is manifested in tuberculosis. Now the truth of both these presumptions is familiar to all who have witnessed many *post mortem* examinations. It is the exception, rather than the rule, to find no miliary tubercles in the lungs of persons dead from consumption. True, some of these miliary tubercles may be found undergoing cheesy metamorphosis, and it may be impossible to say just how much of the cheesy matter found in the lung is degenerated epithelium, and how much is degenerated tubercle ; indeed the whole confusion about pulmonary tubercle seems to have resulted from the supposition that *all* cheesy matter found in the lungs was transformed miliary tubercle, by which supposition the products of pulmonary inflammation were completely ignored. Certain it is, however, that pulmonary inflammation does result in cheesy products ; also that in certain cases of consumption, cavities and cheesy masses are found, but no evidence of miliary tubercles.

Now, Niemeyer states that in consumption proper—that is, chronic pneumonia with degeneration of inflammatory products and disintegration of lung-tissue—the thermometer shows an average daily variation of from 1½° to 2°—very seldom less, frequently much more; but that when in consequence of the absorption of inflammatory products, tuberculosis has supervened upon the phthisis, the fever changes from an intermittent or remittent to a continued type. I have made some observations on this point, as follows:

In the early part of August, I selected seven patients in the third stage of consumption. With considerable care I took their temperatures, morning and evening. These observations were made between 8 and 9:30 o'clock a. m.—between 6:30 and 7:30 p. m. The same thermometer was used in all the cases, and was uniformly placed under the tongue.

Case I.—Hans J., a Norwegian barber. The average of twenty-two consecutive morning observations—Aug. 24 to Sept. 14, both included—was 99.5°; of nineteen consecutive evening observations, 100.24°; making an average diurnal rise of .74°.

The post mortem examination showed a cavity at either apex, surrounded by considerable cheesy consolidation; also a very thick dissemination of miliary tubercles through both lungs, most numerous near the apices, but scattered thickly even to the bases.

Case II.—Wm. McD., an Irish porter, aged 38 years. The average of twenty-six consecutive morning temperatures—Aug. 24 to Sept. 18, both included—was 99.7°; of twenty-five evening temperatures, 100.6°; giving an average evening rise of .9° F.

The lungs were found to contain each a small cavity at the apex; also considerable cheesy matter in the upper part, and extensive deposits of miliary tubercle throughout.

Case III.—Jas. S., an English carpenter, 26 years old. The average of thirty-one observations was 100.7° for the morning, and 101.8° for the evening temperature—an average evening rise of 1.1°.

The lungs showed two cavities, cheesy masses, and a considerable sprinkling of miliary tubercles, less than in either of the other cases.

Case IV.—Lizzie L., an American servant girl, 19 years old.

The average morning temperature from Oct. 4th to 25th, was 100.66° ; the evening, 101.02° : making an average rise of .36°.

The lungs contained not only cavities, but an abundance of miliary tubercles.

CASE V.—Nils N., a Swedish laborer, 52 years of age. Owing to multiplicity of duties, I took the temperature for only five days. The temperature averaged in the morning 100.06° ; in the evening, 100.87° ; an average evening rise of .81°.

An examination showed an immense cavity in one lung, a small one in the other—both lungs thickly studded with miliary tubercles.

CASE VI.—John B., an Irish tailor. The average of twenty-six morning observations—Aug. 24 to Sept. 18, both included—was 100.13° ; evening, 101.08° ; an average rise of .95°. In this case the ends of science were defeated by the vigilance of friends, who removed the body before an examination was made.

In these cases we observe that the fever was of a continued form—the diurnal variation in five of the six cases being less than one degree—and that the lungs contained miliary tubercles as well as cheesy masses. In my—

CASE VII.—That of John F., an American butcher, the average morning temperature from Aug. 24 to Sept. 18 was 99.16° ; evening, 101.74° ; an average rise of 2.58°. His lungs contained cavities and cheesy masses varying in size from a hazel to a walnut, scattered through the organ, *but no miliary tubercles.* In this case the fever was markedly remittent, and the miliary tubercles were absent.

These are the only cases which I am at present able to present from personal observation. In looking over the records of the hospital, however, I observed that in July last the temperature had been recorded, morning and evening, for seven days, in a case of consumption, by the then House Physician, Dr. Roswell Park. Upon inquiry, I learned that the Doctor had conceived the same idea as myself, but had carried it into execution only in this one case, which he has kindly permitted me to report.

The average morning temperature was 97.9° ; evening, 100.1° ; an average diurnal rise of 2.2°. There was noted at the autopsy

an abundance of cheesy masses, but no miliary tubercles—another case of remittent, or rather intermittent, fever without tubercles.

Now, these observations seem to be in accord, so far as they go, with Niemeyer's ideas regarding the significance of temperature in consumption. So far as I could perceive, the thermometer afforded the only means of ascertaining the supervention of tuberculosis upon phthisis. I examined carefully the sputum, as well as the physical signs afforded by the patients referred to. Nowhere could I detect any marked or constant difference between the simple and tuberculous consumptive. And this seems rational; for *all* had consumption—that is, consolidation and disintegration of the lungs, and, as a consequence, all furnished the signs of solidification and excavation. It is true that the respirations vary somewhat; that is, of two patients presenting the same physical signs—that one having a continued fever breathes more frequently than the other with remittent fever. This is well illustrated by two patients at present under observation. Both are American girls, one 18, the other 19 years old. Each has a large cavity at the left apex, with extensive solidification around it, as well as at the other apex. One who has a remittent fever, the daily variation averaging $2\frac{1}{2}°$, breathes twenty-eight times per minute; the other, with a continued fever (daily variation only one-third of one degree), breathes forty-three times per minute—a majority of fifteen respirations per minute in favor of continued fever. I have observed a similar disparity in other cases. But as the frequency of respiration is modified by several influences, it is of but little value as a diagnostic sign.

Now if these ideas be well grounded, their practical value is manifest. Although some patients die of pure inflammatory consumption, such cases are in the minority; the majority present the miliary tubercles in addition to the cheesy masses. Now the tuberculosis usually supervenes, according to the authorities, after consolidation of the lung is evident, and it is the cheesy masses forming this consolidation which constitute the foci of infection whence proceeds the tuberculosis. As Niemeyer tersely states it, "The greatest danger for the majority of

consumptives is that they are apt to become tuberculous." In other words, a simple consolidation of the lung, however extensive, nay, even a certain amount of disintegration and excavation, is not necessarily fatal.

Read Nov. 19, 1877.

II.

Mechanical Injuries of the Globe—With Numerous Pathological Specimens.

By Dr. E. L. Holmes.

(Presented to the Chicago Medical Society.)

Some weeks since, I placed before this society several specimens illustrating the effects of diseases, which almost always necessitate the removal of the globe.

I now present 28 specimens showing the changes which take place in the globe after certain injuries, and which render the removal of the eye necessary, either to relieve pain or to prevent loss of sight in the other eye.

Although the question regarding the propriety of removing the globe can seldom give rise to doubts in the minds of an experienced practitioner, there are rare instances when the exercise of the most deliberate and wise judgment is requisite.

In general terms, it may be stated that the injuries which most frequently necessitate the removal of the globe are: 1st, foreign bodies within the intraocular tissues; 2d, concussions; and 3d, incisions, especially near the ciliary region.

In general terms, it may also be stated, that an eye should be extirpated, whenever, after an injury, the inflammation, especially of the iris and choroid fails to improve after a reasonable time, and there continues a tenderness on gentle pressure near the corneal border, with loss of vision.

Foreign bodies in the globe.—Of the specimens before you, 13 represent cases in which foreign bodies were lodged within the globe. In three of these cases, pus had formed in the vitreous humor, after a period varying from three days to three weeks. In four cases there was atrophy of all the ocular tissues, so that

the sclerotic was deeply fissured in the region of the four recti muscles, and firmly contracted upon quite a hard mass of atrophied vitreous, choroid and retina. In six cases you perceive excellent examples of every stage of detachment of the retina; in some the retina resembles an umbrella partially closed; in two cases it has been pressed into the central portion of the globe, presenting the appearance of a cord passing from the optic nerve to the anterior part of the eye. (See Fig. 5.)

Fig. 5, a section of the eyeball, showing the "corded retina," from the effects of a foreign body.

a. The retina, folded into a dense round cord, by exudation between it and the choroid.

b. The position of the condensed and degenerated vitreous humor.

c. The foreign body (a small bird shot).

d. The choroid.

The substances which caused the destructive inflammation in these specimens, are fragments of steel, lead, percussion caps, and of wood. In none of the cases could their position be determined by a careful inspection with the ophthalmoscope, since the products of inflammation or hemorrhage concealed them.

It is worthy of remark that it is a most difficult manœuvre to remove a foreign substance from the vitreous humor, even when it can be seen through the pupil.

In three of these cases the patients had already lost the vision of the uninjured eye by sympathetic inflammation at the time of the extirpation.

Concussions.—In eight cases the globe was extirpated on account of injuries received by blows.

In two cases there is very great atrophy of all the tissues of the globe, with quite a large mass of calcareous deposit in place of the choroid.

In six others the globe has retained its normal size, but is characterized by total liquefaction of the vitreous. One case is especially worthy of notice, on account of the very hard coagulum between the sclerotic and choroid, which almost absolutely fills the whole globe, the retina and choroid being crowded to the

opposite side. The patient had been in great pain for three months after receiving the blow.

Incisions and Punctures.—Of the twenty-eight specimens, eight illustrate the effects of this class of injuries. Almost without exception the wounds were quite large, and involved the ciliary region. They present considerable variety in the condition of the intra-ocular tissues; some are filled with a serous fluid, surrounded with a very thin choroid and retina, the iris being in contact with the cornea, and the ciliary bodies much attenuated. Others are less than normal in size, the internal membranes being thickened and indurated. In one specimen there is a remarkable thickness of the choroid and retina, each measuring nearly a sixteenth of an inch.

Two of these patients came under my care blind also in the uninjured eye from sympathetic inflammation.

As a rule of great practical importance, I repeat, that an eye which has been injured in any of the ways above mentioned, should be extirpated when vision has been destroyed, on account of irido-choroiditis, and, in spite of all treatment, the globe remains persistently tender on pressure over the anterior portion of the sclerotic.

I think I can except those cases, not numerous, however, in which, very early after the injury there is extensive suppuration of all the tissues of the globe, as indicated by great pain and extensive œdema of the ocular conjunctiva and of the lids. In these cases relief is secured by making an incision through the walls of the globe from the internal to the external angle of the palpebral fissure, and evacuating all the intra-ocular contents, including the choroid and retina. An artificial eye can be worn over the small "stump" somewhat more comfortably than when the whole globe is removed.

III.

Case of Abscess of Spleen, with Perforation of Large Intestine.

By Dr. Geo. E. Brown,

(Resident Physician at St. Luke's Hospital.)

Mrs. F., æt. 31.—Her father died from phthisis pulmonalis. When she was 12 years old had typhoid fever, as was supposed, since which time she had had an icteric hue of the complexion, and almost a constant pain in the region of the spleen, aggravated at times.

Came to this country four years ago, and had recurring chills since then, regarding which not enough could be learned to enable us to say positively that they were malarial, though, at first, as nearly as could be learned, the chills recurred every second day, but when she came under our observation, Sept. 27th last, they obeyed no such regularity.

Last winter she was troubled with cough, and was thought to be the subject of phthisis.

Last June she gave birth to her first child, having been married but about one year; the placenta was retained four days, and then taken away piece-meal, after considerable loss of blood.

For two months after this she was very low, but, recuperating to some extent, her friends thought it advisable to remove her to St. Luke's, where she could be under constant medical attendance. When she was admitted to the hospital she had a peculiar yellowish cachectic appearance of the countenance; was extremely emaciated and anæmic.

Treatment, for a time, seemed to benefit her; then she grew worse, having irregularly recurring chills, constant though moderate pyrexia, and profuse nocturnal perspirations.

Oct. 3rd, had four severe hemorrhages from the bowels, coincidently with which the enlargement of the spleen—which I neglected to mention in the proper place—subsided. Unaccountable as it was, she was better after the hemorrhages, and began to improve. However, the improvement was only temporary.

In a few days profuse fluid or semi-fluid discharge from the bowels came on, when was discovered, for the first time, the fact that these evacuations were largely made up of *pus*.

The true nature of the case did not even then dawn upon us; indeed it did not until our ocular sense revealed it to us at the post-mortem examination. The patient rapidly sank, and died Oct. 15th.

The following is a synopsis of the post-mortem:

Extensive pleuritic adhesions over left lung, pleura thickened, and pleural cavity half full of dirty, yellowish-looking fluid; hypostatic congestion of the lower lobe of right lung.

These thoracic troubles, it may be remarked, were entirely latent excepting a cough that she had *last winter*.

Abdominal cavity: Peritoneal adhesions over left side, binding the descending colon to the spleen; some inflammatory serum in cavity of peritoneum.

Spleen disorganized and the seat of large cavities, and disseminated smaller ones, filled with a darkish-gray, purulent, and extremely offensive material; cretaceous concretions in walls of cavities.

Descending colon adjacent to spleen perforated by ulceration, allowing a communication between the cavity in the spleen and the intestine.

Liver enlarged, and centers of portal lobules congested; ulceration of os uteri.

The ovaries were disorganized.

The explanation of various phenomena of this patient's illness is too manifest to require comment.

THE TREATMENT OF INFLAMMATION OF JOINTS BY PERMANENT EXTENSION.

By Nicholas Senn, M. D., Milwaukee.

[*Read before the Rock River Medical Society of Wisconsin.*]

Among the different methods of applying permanent extension I shall limit myself to that by the weight and pulley as the simplest, most practical and efficient. Like so many of the most important inventions in surgery, it is of comparatively recent introduction, possessing a short but eventful histoty, a history intimately associated with the names of the greatest surgeons of the last century. Sir Benjamin Brodie, whose vast experience, close observation and originality of thought so rapidly developed the resources of surgical appliances, first employed extension in the treatment of joint affections. Observing the frequency of spontaneous dislocation of the head of the femur after coxitis, it occurred to him that this formidable result might be avoided, if extension could be applied during the progress of the disease, and that thus spasmodic muscular contractions might be relieved. He applied extension by fastening a belt with buckle around the thigh above the condyles of the femur; to this belt the extension cord was tied which passed, with the weight, over a simple pulley at the foot of the bed. The necessary counter-extension was made by encircling the pelvis with a broad leather belt and fastening it to the opposite side of the bed with cords. Rude and imperfect as this method of application must have been, it yielded in his hands the desired results. Experience soon demonstrated that it not only prevented dislocation, for which it was originally intended, but it also removed pain, and modified the process of inflammation. Through his influence this new treatment was soon adopted by his contemporaries; but, on account of want of skill or the imperfection of the appliance, as taught by Brodie himself, it soon fell into disrepute. In 1854, it was presented as something entirely new by Gustav Ross, in a short article, published in the *Deutsche Klinik*, No. 9, 1854, entitled, "Ueber ein neues Behandlungsprincip der Gelenkent-

zündung." This time it was proposed as a substitute for the *brisement forcé*, as taught by Bonnet, for correcting deformities. *brisement forcé*, or rapid and forcible extension, was at that time advised during the progress of the inflammatory process. This heroic treatment could not fail to frequently produce disastrous results, which induced Ross to substitute for it the more rational means of gradual and permanent extension. He strongly urged its advantages in being applicable during the early stages of disease, and its influence in abating in place of aggravating the co-existing inflammation. In America, it found ready introduction through men like Wallace, Davis, Taylor, Pancoast, and Sayre. In Europe it has come into general use through the researches and untiring labors of Barwell, Volkmann, Langenbeck, and Hueter. There is at present, perhaps, no other surgical appliance in more general use over the entire world than permanent extension for the treatment of joint affections. While most surgeons resort to it both in hospital and private practice, there are a few exceptions, prominent among them Dr. Louis Bauer, formerly of New York, now of St. Louis. He believes that the only beneficial effect, if any, consists in fixation; that it acts as an additional irritant to the already irritated and contracted muscles, aggravating inflammation.

The accumulated experience of many reliable observers, however, has conclusively demonstrated that gradual extension—(1) removes pain; (2) corrects deformity; (3) directly influences the course and result of inflammation.

Extension by weight and pulley has generally been applied to affections of the knee and hip joints, although it has been used with equal success in other parts of the body. Volkmann has used it extensively in Potts' disease of the spine. In this disease we have all witnessed the prompt disappearance of the excruciating pain after extension by some mechanical means sufficient to separate the inflamed surfaces of the bodies of the affected vertebræ. I have now under my care, at the Milwaukee Hospital, a little girl, suffering from a chronic inflammation of the shoulder joint, accompanied by a rotation of the humerus outward, who is rapidly improving after a few weeks of extension.

The mode of application is the following: The skin should

be shaved before applying the adhesive plaster, which should be fresh and spread on Canton flannel. Two strips, each sufficient in width to cover one-third of the circumference of the limb, should be applied to each side of the limb and extend from the inflamed joint to below the extremity of the limb, where it is fastened over a block of wood of sufficient length to prevent injurious pressure over the bony prominences of the joint. To the center of this block of wood a short cord is fastened, which runs over a pulley at a point corresponding to the axis of the limb, with the necessary weight attached. I am always in the habit of cutting the upper portions of the extension straps into several strips to secure a better hold, and to bandage the limb from the distal end to the joint affected, with a roller over which is applied flour paste to prevent it from slipping. The plaster should be applied evenly and smoothly, and the bony prominences, if necessary, protected by cotton. The pulleys should be large, with a deep groove. It often is convenient to use more than one pulley—one near the mattress, and the other on the top of the foot of the bed, or in the ceiling. The weight must vary according to the age of the patient, and the amount of muscular contraction to be overcome. It will vary from three to twenty pounds. The best substances to regulate the amount most accurately are sand and shot. As a rule, it is best to begin with a small weight and gradually increase it, until the desired effect, muscular relaxation, has been accomplished. When muscular action has ceased, it is well to diminish the weight. An important fact to remember is this: Always begin extension in the direction of the deformity. I am satisfied by personal observation, that this rule is not generally observed. Extension should, at once, diminish pain instead of increasing it, as will inevitably be the case if this rule be neglected. The very object of extension is to tire out the contracted muscles gradually, and not suddenly. If extension increase the suffering, it has not been properly applied, or the case is not one appropriate for its use. In acute affections of joints, contraction is one of the earliest symptoms. In acute coxitis we may find, at our first visit, the thigh contracted at a right angle to the pelvis. In such cases, the extension must be modified to meet the indications in each individual case. I gen-

erally proceed as follows: I have a double-inclined plane made, extending from the foot to the tuberosity of the ischium, the angle corresponding to that of the limb. The two planes are connected by hinges; the base consists of a board with notches, into which the lower plane fits, for the purpose of increasing or diminishing the angle of the planes. Two broad strips of adhesive plaster are now applied to the sides of the thigh, extending from the hip-joint to below the knee, where they are fastened over a block of wood, to which is applied the extension cord. The pulley is fastened into the ceiling at a point which corresponds to the axis of the femur. By bringing the lower plane into the lower notches, the angle can be gradually diminished until the limb is in a straight position—when extension in the usual manner can be applied. The double-inclined plane is not only convenient for the purpose of straightening the limb, but acts as a splint fulfilling another indication in the treatment of all inflamed joints, second in importance only to extension, viz., fixation. The inclined plane can be used with the same benefit and for the same purposes, if the extension is to be applied to the leg, in cases of inflammation of the knee-joint. Fixation and extension should always be combined. Extension alone is insufficient to insure the desired immobility of the joint, hence it is almost always necessary to call into requisition some additional means to accomplish this object. Besides the inclined planes, I have found leather splints of great value. In cases of hip disease, after the limb is brought nearly to a natural position, I take a piece of thick sole leather extending from the axilla to three inches below the foot. It must be sufficiently wide to cover one-half of the circumference of the body, thigh and leg. After it is thoroughly soaked in water, the inner surface is covered with one or two layers of cotton-batting, and the splint applied to the outer side of the limb. Care must be taken to mold it accurately to all of the irregularities of the surface. It is retained *in situ* by two or more roller bandages extending from foot to axilla. The bandages are thoroughly impregnated with rye-flour paste. During the time the splint is applied, the patient must be held in a horizontal position over a table, by several assistants, extension being made at the same time. After the splint is applied, the patient is placed in bed, and

extension by weight and pulley continued until the application becomes dry, which usually takes from one to two days. By cutting the bandages on the inner side of the leg and side of the body, introducing eyelets near the cut margins, the splint can be removed and accurately re-applied by lacing. This splint secures perfect fixation, and I prefer it to the more expensive wire-splint of Bauer. In cases of disease of the knee joint, extension can be combined with fixation by means of a posterior splint, with foot-board and movable joint at the knee. For extension at the ankle joint, a plaster-of-Paris shoe must be applied, into which the extension straps are incorporated. The equal pressure from this dressing produces results which surpass those when adhesive plaster is relied upon.

It is interesting to observe that while extension has been used with the best results throughout the whole civilized world, authorities differ in regard to its mode of action. Brodie used it to prevent dislocation; Ross to prevent deformity; to-day we attribute to it, in addition, direct antiphlogistic properties. Prof. Volkmann believes that the articular surfaces are separated by elongation of the ligaments, and so firm are his convictions in this respect that he terms this treatment "Distractionsmethode." Bardeleben, and most American surgeons, sustain his views. Prof. C. Hueter, on the other hand, asserts that its curative influence consists in an increase of intra-articular pressure and immobility. In regard to its effect on intra-articular pressure, Reyher's experiments on cadavers are conclusive. He found by injecting different joints that their greatest capacity was reached in the normal semiflexed physiological position. The capacity for fluid diminished by a deviation from this position. We find, in practice, that patients suffering from inflammation of joints uniformly assume this position. To test the effect of extension in affecting joint capacity, the same experimenter made an opening into the knee joint through the patella, inserting a glass tube, and filling the joint with water. He found the column of water in the tube lowest when the limb was semiflexed. Applying extension in the ordinary manner, the fluid in the tube rose; this effect he attributed to the compression of the joint by the traction of the skin over it. After division of the skin above the

joint by a circular cut, the column of water again diminished. Hueter repeated these experiments and corroborates their correctness. Experience at the bedside also confirms these statements. We frequently meet with cases of acute inflammation, attended by copious and rapid effusion, aggravated by extension, while the more chronic cases with relaxation of the structures of the joints are promptly benefitted by it. If it is thought desirable to make extension and avoid this increase of articular pressure, it is important to apply the plaster as far away from the affected joint as possible, and to include the bony prominences of the next distal joint.

When we reflect upon the unyielding character of the ligaments of the large joints, it becomes difficult to conceive how the articular surfaces can be parted by any justifiable amount of extension. This result undoubtedly can be obtained after the disappearance of a copious effusion with relaxation of the ligaments, or after the prolonged use of a heavy weight. It is doubtful whether such separation is ever necessary. The principal use of the weight consists in neutralizing the reflex muscular contractions of the flexor muscles, and in doing this it does not diminish intra-articular pressure, but the pressure between the articular surfaces. That this increased pressure produced by muscular contraction acts unfavorably upon the local process is shown by numerous specimens. The greatest distraction of tissue is uniformly found where the greatest amount of pressure had been exerted. It is also a well-known fact that in neglected cases of inflammation of joints that have existed for an indefinite time, recovery frequently takes place after removal of this pressure by spontaneous dislocation. Extension not only diminishes pressure directly, but, at the same time, by gradual straightening of the limb, changes the point of pressure. I apprehend that this constitutes an important factor in its mode of action.

The empirical use of extension has not only led to frequent disappointment, but has often been the cause of much unnecessary suffering. As with so many other valuable agents, it has been abused by its too indiscriminate employment. A rational use of it must be limited to certain well defined pathological con-

ditions. Volkmann and Langenbeck have used it with great success in the acute inflammation of joints following gunshot injuries. If these or any other traumatic injuries lead to disorganization of the cartilage or ends of the bones, its employment becomes of paramount importance for the safety of the joint. If, on the other hand, the disease is limited to the synovial membrane and ligaments of the joints, and the surgeon is called before decided contraction has taken place, fixation is preferable to extension. In catarrhal inflammation of joints it is useful as an orthopedic remedy, promoting, at the same time, absorption by moderate compression. The best results by extension have been obtained in cases where the disease involved the articular cartilages or the bone itself. These cases are always accompanied by painful muscular contraction, which promptly subsides after its use. Its power to remove pain was recognized by Brodie. Howard Marsh found in children suffering from hip disease, that after he removed the weight during sleep, they would soon become restless and awake with pain. The same effect is also observed if the weight be removed too soon, before all pain and tenderness have subsided. Great care, therefore, must be exercised not to remove the weight too early. I recollect two cases of hip disease where extension was continually applied for over six months. In one case suppuration took place; the abscess appeared on the anterior surface of the thigh below the joint; and fluctuation, which had been apparent for several months, gradually disappeared, and the limb became anchylosed in a good position. In the second case the weight was removed on two different occasions, but as the pain reappeared in a few days, it had to be re-applied. After eight months of treatment, recovery took place, with a good movable joint. In some cases of a strumous diathesis it may become necessary to substitute for the weight the portable apparatus for extension, as Davis', Taylor's, Andrew's, or Sayre's splint. After the acute symptoms have subsided, and the limb is in proper position, one of these splints may be applied during the day, and the patient permitted to be carried into the fresh air, and at night the extension by weight continued.

Extension by splints of any kind is insufficient in recent cases,

and can never take the place of the weight and pulley except as an auxiliary measure to complete the treatment.

We must, lastly, consider extension as an orthopedic agent. Employed for this purpose it is a rival to *brisement forcé*. The latter can judiciously be employed only after all inflammatory symptoms have been removed; extension, on the other hand, is one of the most valuable remedies to subdue inflammation, and consequently is applicable during the early stages of the disease. It not only corrects, but, what is still more important, prevents deformity. *Brisement forcé* can correct angular deformity only; it is perfectly useless in removing abduction or rotation. Extension, by gradually neutralizing muscular contraction and elongating ligaments, is not only a safer means for restoring the normal angle, but accomplishes at the same time the latter. In old contracted joints, the ligaments on the flexed side have frequently undergone such an amount of thickening and shortening that nothing short of rupture would permit a restoration to the normal position. If immediate and rapid extension be used, aside from the injury inflicted by such heroic treatment, a relapse is frequently inevitable from contraction of the cicatrix, resulting from healing of this subcutaneous wound. Gradual extension, however, causes no new injuries, but simply elongates the contracted tissues. For the application of extension to contractures of the muscles of the hip joint, I would refer to an article on this subject in my report to the State Medical Society, at its last session. In some obstinate cases of fibrous anchylosis it may be well to combine forcible with gradual extension.

There is one condition of the knee joint which positively contra-indicates the use of extension. I refer to partial dislocation of the tibia backwards, the result of a preceding gonitis. Whenever the head of the tibia has been displaced backwards, so that the anterior edge has passed the median line of the articular surface of the femur, the tibia is converted into a lever of the second kind, and the displacement is aggravated by extension.

I conclude by presenting the following propositions for consideration:

I. The weight and pulley constitute the best method for making permanent extension.

II. Extension should always be first made in the line of deformity.

III. Extension operates as an antiphlogistic and orthopædic agent, by removing muscular and ligamentous contractions.

IV. Permanent extension is most useful in cases of joint affection where the cartilages or the ends of the bones are diseased.

V. As an orthopædic measure, extension should always supersede *brisement forcé*, so long as pain and tenderness exist; in exceptional cases of contracture, it may be profitably combined with forcible extension.

VI. In the treatment of inflamed joints, extension must be combined with fixation.

MILWAUKEE, WIS., Sept. 14th, 1877.

A NEW STEM PESSARY WITH MOVABLE DISC.

BY E. CUTTER, M. D., CAMBRIDGE, MASS.

Sometimes it is difficult to introduce a stem pessary into the uterine cavity, because the flexion it is designed to straighten, the narrowness of the os uteri, and the sphincters of the os vaginæ all resist. Sometimes, too, the uterus itself will rise out of reach on the end of the stem, and at times the stem will pocket itself in the uterine wall. It is generally necessary first to reduce the flexion by means of a uterine sound, next to pass the stem through the os by the side of the sound. When the ordinary, or the writer's stem pessary, with fixed disc, is employed in this way, a great obstacle is found in the excessive stretching of the mouth of the womb caused by the triangle made by the sound, the stem and the semi-diameter of the disc. The sound forms one side of the triangle, the stem of the pessary another, and the half disc the base. To properly introduce the stem, the os must be dilated so as to swallow this whole triangle. Sometimes it will do it readily; at others, the point of the stem will not pass beyond the angle of flexion. In this case, if the sound is withdrawn, the stem can be pushed up into place. But if the point of the stem halts before reaching the flexion, and the sound is with-

drawn, the stem will rarely be pushed beyond, because the flexion is so readily re-established when the sound is removed.

To obviate the stretching of the os uteri, it would theoretically be the simplest way to get rid of the base and one side of the triangle described above, by passing the stem immediately after the sound is withdrawn. This can rarely be done, as a flexed uterus is very much like a bent steel spring — the flexion will return as soon as the extension is withdrawn. We are left then to pass the stem by the side of the sound, which is buried in the uterine cavity, and which is straightening out the flexion. The base of the triangle described must be reduced to a minimum. This the writer formerly accomplished by slotting the disc down to the axis of the stem. This procedure permits the cylinder of the stem and the sound to lie side by side, and offers the smallest obstacle to introduction. *But* (how often this little word spoils our expectations) it was found practically also a difficult thing to keep the sound in this slot, or prevent the knob (which serves as a mark two and a half inches from the distal end) from becoming engaged and caught in the disc, so that both sound and stem would have to be removed before they could be separated; thus defeating the whole operation.

It was then thought best to have the disc movable — to insert it first of all into the vagina, pass the sound through it, and then pass the stem through that, and so on. It was found, however, that this method would require too large a foramen in the disc, and that the sound would be introduced with greater difficulty than before.

It next occurred to have the disc movable on the cylinder of the writer's stem pessary, towards the proximal end — to pass the denuded stem side by side with the sound — to withdraw the sound and then slip up the disc into its place. This idea, carried out, has been found to be practical. The base of the triangle above referred to, and the necessary stretching out of the os uteri, are reduced to a minimum. The contraction of the vagina and the pressure of the perineum are rendered very much less by the disc being entirely outside the body until the stem is properly introduced, and the whole operation is much simplified. The disc has a central perforation large enough to admit the cylinder

of the pessary. On the inside of the circumference of this perforation, an annular channel or square groove is cut. Another groove is cut vertically leading into the annular groove from above. Opposite to this vertical groove, is a small notch in the edge of the disc, which serves to mark its location. A pin is inserted into the base of the stem of the pessary. which fits into the grooves above named. When this pin enters the vertical groove, it passes into that which is annular, and the disc is thus held securely. The chance of its escaping is small when the disc is turned through about half a circle.

The figure represents such a stem pessary. It shows the movable disc in the act of being passed up to the bayonet catch at the base of the stem. The notch is rather too faintly represented in the cut. A small pin inserted in the under surface of the disc answers better than the notch. The dotted lines show the situation of the disc over the pin in its final location. The transverse line between the disc and the proximal end of the pessary, marks the site of a joint, which allows of the end being turned away during the act of defecation, and being held thus supporting the uterus at a time when it is most needed.

These stems must be used with care. It is not enough to send for a stem pessary, and apply it to the first case that comes under observation. A process of preparation should precede its use.

The diagnosis of simple flexion should be assured. There should be no metritis, or perimetritis, nor any complications of diseased conditions.

The patient should be willing to lie in bed for a week, if necessary. The general health should be cared for with the proper generous diet and medicine. A compliance with the conditions named above, implies an examination with the uterine sound. If conducted properly, it throws light upon most of the doubtful points. At the same time, the depth of the uterine cavity should be noted, and also the distance from the os uteri to the perineum. A stem pessary should be selected *after due consideration of*

existing conditions. Its stem should be one half or one quarter of an inch shorter than the depth of the uterine cavity; and its cylinder should be half an inch longer than the measurement from the os to the perineum.

When every preliminary is arranged rightly, the patient may recline laterally on the padded top of a dining-table. The left arm should project behind, and the knees be drawn up. The sound may then be introduced, straightening out the flexion, and the patient, resting her right fore arm on her right thigh, should hold it in place; or an assistant may do the same thing. Unless the fore arm is resting upon something, the hand will insensibly move, and the uterine sound be expelled by the contraction of the uterus. Next the disc of the pessary is pushed down to the proximal end, and the left forefinger of the operator placed on the os, when the stem is passed over the finger, and engaged in the os by the side of the sound. It is then pushed beyond the site of the flexion, and the sound withdrawn. The stem is next pushed into place — a point made known by the position of the pin on the stem-shaft. The disc is then slipped along the cylinder by the left forefinger through the vagina, and its grooves are engaged on the pin. The notch in the disc serves as a guide-point. The facility with which the pin engaged in the grooves has surprised me in every instance of trial. After engagement, the disc is turned about half a circle, and the suspensory cord is held in the hand, while the belt is secured around the waist. If the cord is slack, it should be tightened; if tight, it should be slackened. The hook of the pessary should entirely clear the perineum, and air should circulate between them. If, as sometime happens, sooner or later, the uterus should rise on the pessary, so that it touches the perineum — a longer pessary should be selected. Vaginal examinations should be made from time to time, and if heat, tenderness and throbbing, combined with subjective pain, local, general or sympathetic, are found, *the instrument should be removed.* Indeed, the *patient herself is always instructed to remove the stem if it becomes a source of irritation or pain.*

The instrument is as much under the control of the patient at all times, so far as removal is concerned, as a set of false teeth

When a stem pessary like that described is properly fitted, the flexion of the uterus is reduced, and the organ held in its normal place. The axes of the pessary are those of the normal vagina and uterus. The pessary does not distend the vagina, but merely dilates the canal of the uterus not much beyond the normal measure. From these features the writer has regarded it as theoretically correct. The practical question turns upon its *toleration.*

All cases of flexion will not tolerate a stem; nor will all cases of sickness tolerate medicine. As we do not know beforehand what patients will tolerate medicine, so we do not know what uteri will tolerate stems.

It is not truthful for any one to assert that *no cases whatever* will tolerate a stem pessary. A patient of mine, seen in consultation, lately wore one of my stems for a year with convenience. Others have worn them for months at a time. A stem pessary, introduced just before the menstrual epoch, was worn without trouble. Indeed, the patient said she had not passed so comfortable a period of monthly sickness for several years. There was an especial reason why this procedure was resorted to — it could not be recommended as a general rule.

This is not the occasion for arguing the pros and cons of stem pessaries. It is here simply designed to state that the apparatus here presented has been found to save time, pains and trouble in introduction, and that the device has been worn for long periods of time without trouble. If, after careful attention to the principle which should prevail when fitting body appliances, the device here recommended, should fail, it should be rejected. It is well, however, to remember that the range of its application lies in cases which are not complicated with other diseased conditions, with the exception only of prolapse of the ovaries.

There is another point to be noted with reference to stem pessaries that bear my name. When a patient wears them well, the instrument needs no close attention, because as long as it is worn the flexion is straightened, and the displacement is *cured*, that is *cared* for in the best manner. Displacement rarely occurs. The writer knows of no *fatal* case from its use, and of no very serious trouble from its employment, because of the care always

taken to watch the case closely for a few days. If there is increasing trouble indicated by systemic and local signs, the patient is directed to remove the instrument at any time. Those persons who introduce various kinds of stem pessaries at their offices, and then send their patients home, must expect trouble, for this is tampering with danger. Indeed, the passage of the uterus must, under similar circumstances, have proved a serious matter. But if done where the patient can keep quiet, no harm results.

Singular as it seems, I have a patient who has worn a stem pessary for over a year who could not wear an extra-uterine pessary on account of hyperæsthesia.

A patient suffering with a prolapsed ovary has worn one of my stems for thirty-two months with relief. The idea was to elevate the uterus with this instrument and lift the fallen ovary up into its place. This patient resides in Maine. She went home from Boston wearing the stem, and seventeen months after its introduction the writer examined the uterus with a speculum. There was no infiltration, obstruction or abnormal redness of the cervix. The os contracted down to its usual size. No evidences were presented of the womb having been so long supported on the disc as this is the "pou sto."

Another remarkable thing—this patient occasonally removes the instrument and replaces it. It is not often that it is necessary to remove. She now is wearing a four-inch stem, the longest ever used in my practice. Some years ago, a woman in Maine was bedridden with a uterine flexion. Her physician, at my suggestion, introduced one of my stems, following the directions here indicated. She wore it two years and was entirely cured.

Another woman, similarly situated, a patient of the same physician, also wore one of my stem pessaries for eighteen months, and was entirely relieved.

Four women are now wearing my stems with relief when other means have failed. All these cases were carefully watched to ascertain the degree of toleration. In the light of this experience of several years, I feel justified in resorting to this means of reducing flexions and elevating prolapsed ovaries. Should any one be disposed to pursue the plan, his attention is respectfully

invited to the fuller exposition of the writer's opinions and directions contained in a little work recently published by J. Campbell & Son, Boston, entitled, "Uterine Versions and Flexions."

CAMBRIDGE, November, 1877.

DIABETES CURED BY SKIM-MILK.

BY DR. H. W. JONES, CHICAGO.

On the 24th of May last, a gentleman consulted me, whose case presented the following aspects:

He was 42 years of age, of a bilio-nervous temperament, of temperate habits, though using tobacco freely, and with a history of remarkable health, excepting an occasional sick-headache, and a rare colic from indigestion.

During the previous autumn and winter, he had been subjected to severe mental strain, and was often engaged at his desk ten or twelve hours a day, under the pressure of anxious responsibilities. For the preceding ten days or more, he had noticed a decided increase in the quantity of urine passed, believing it to amount to eight or ten pints daily, while the frequency of micturition was a source of annoyance by day and night.

He was also unusually thirsty, experienced decided lassitude, and though with fair appetite, had difficult digestion, and was losing weight. His mouth was aphthous, and he had balanitis for the first time in his life. A specimen of urine, presented the next day, was of a bright amber color, fruity odor, acid reaction, without deposit, specific gravity 1047°, and with Fehling's test precipitated abundant sugar.

The recent knowledge of Dr. Arthur Scott Donkin's plan of treating diabetes by a strict confinement of the patient to the use of skim-milk, led me to propose this regimen as the most promising known, and Mr. D. entered at once upon it with an intelligent appreciation of the gravity of his disease, and of the rules laid down for his guidance. These were briefly as follows: He was (1) to take *no other food* than skim-milk; for the first day or two (2) he was to drink but *four or five pints* in all,

distributing this amount at intervals of two hours; after the third day (3) he might add a pint or two of the same preparation *curded with rennet*, but he was not to exceed seven pints, including curd,

The milk was obtained through special sources, and was kept till all cream had risen, when every particle of the latter was carefully removed.

The record here given, Mr. D. kept personally, and it is replete with interest.

DATE.	SP. GR.	SUGAR.	NO. PINTS OF MILK 24 HOURS.	NO. PINTS URINE 24 HOURS.	WEIGHT.	REMARKS.
May 24.....	1047°	heavy	.....	8 to 10	.....	Disease discovered.
May 25.....	.....	.....	.....	.....	154	Usual weight about 165 pounds.
May 26.....	1047°	heavy	3	.....	.....	Began skim-milk; other food and drink given up.
May 27.....	.....	.....	6	6		
May 28.....	.....	.....	7	5	147	Weak and indisposed to exertion.
May 29.....	.....	.....	.....	4	150	
May 30.....	.....	.....	8	4	152	Two pints made into curd.
May 31.....	1038°	less	8	.....	153	
June 1.....	.....	.....	8	.....	154	Constipated.
June 2.....	.....	.....	8	3½	154	
June 7.....	1030°	less	10	.....	.....	Four pints made into curd.
June 10.....	.....	.....	.....	4		
June 14.....	1023°	little	.....	.....	152½	Water enemas relieve constipation.
June 21.....	1022°	little	10	.....	152	
June 28.....	1018°	none				
July 1.....	.....	.....	.....	2		
July 5.....	1032°	sugar	10	.....	.....	Milk had not stood long enough to separate cream.
July 7.....	1028°	less	10			
July 8.....	.....	.....	8	3		
July 10.....	1022°	none	8	2½		
July 12.....	1020°	none	10	.....	.....	From this date no sugar appeared; the same food being continued.
Aug. 7.....	1018°	none	.....	.....	.....	Began eating mutton-chops and beef; no starchy foods. It is four weeks since sugar disappeared, and seventy-three days since treatment began. Averaged 1020° to 19th.
Aug. 19.....	1022°	none	.....	.....	.....	Eats now lamb, mutton, beef, fish, cabbage, onions, squash, oysters, eggs, chicken, and drinking tea and coffee.
Aug. 30.....	1020°	none	3	normal	145	
Sept. 10.....	1020°	none	3	normal	.....	Commenced eating bread.
Sept. 20.....	.....	slight	.....	.....	.....	A sleepless night and much anxiety.
Sept. 21.....	.....	none				

It will be observed that in five days the specific gravity of the urine diminished from 1047° to 1038°, and its quantity, from eight pints or more, to four pints daily. Meantime, the weight of the patient suffered little diminution.

In less than thirty days the specific gravity reached 1018°, and sugar wholly disappeared; but July 3d, when the atmosphere

was unfavorable to the preservation of milk, and to the total removal of cream, sugar reappeared, but in very slight amount, the density meanwhile reaching 1032°. By the 10th, however, this fell again to 1022°, and the quantity of urine passed, to two and a half pints.

Four weeks from this time he began to eat mutton and beef, but touched no amylaceous food.

One month later he was permitted bread, and found no sugar during about a week, but then, after a sleepless night, and much anxiety, he reported "a trace," which disappeared in less than a day, and has never since recurred.

At present, the patient seems in perfect health, though he has been actively engaged at his usual avocation during the entire treatment. His stomach was never more dutiful, and he has had neither sick-headache nor colic since May last.

The result of this case, as compared with previous experiences in the treatment of diabetes, leads the writer to hope that Dr. Donkin's views* may be more widely recognized as both scientific and practical, and that the record of other cases treated in accordance, may prove as satisfactory.

THE BATH OF DECREASING TEMPERATURE IN THE TREATMENT OF TYPHOID FEVER.

By M. H. Garten, M. D., Dover, Illinois.

I do not make any claim to original ideas in the treatment of typhoid fever, as set forth in this article, but merely wish to relate the history of a case which, to me, appears to be of unusual interest, and whose active symptoms were mitigated under the influence of the bath of decreasing temperature.

Mrs. E. C——, aged 20, in her first pregnancy, nursed her husband during an attack of typhoid fever. I was called to see her Sept. 2d, 1877. She stated that she had not been well for several days, that her flesh was sore, and that at times she was chilly and feverish.

* "Diabetes and Its Relation to Food," and "Diabetes and Its Treatment by Skim-Milk."

I found her with a pulse of thirty beats, tongue slightly coated, pain in the head and back, slight abdominal tenderness, and the bowels loose. Having conducted her husband through his fever, I naturally suspected that this case was one of the same character, and gave tincture of gelseminum, sub-nitrate of bismuth and opium.

Sept. 4th.—The pulse was 120, the bowels moving less frequently, free epistaxis at times, and an annoying cough. No appetite. The bismuth and opium were continued, but instead of gelseminum, I gave dilute muriatic acid and tincture of digitalis.

Sept. 6th.—No marked change.

Sept. 7th.—Morning temperature in axilla, 103 3-5; pulse, 120. Evening temperature, 105; pulse, 118. Bowels loose. Free epistaxis during the day and cough; tongue dry and fissured; milk or beef tea at regular intervals unless the patient sleeps. The nurse is instructed to omit the medicine rather than the nourishment.

Sept. 8th.—Morning temperature, 102 4-5; pulse, 114; evening temperature, 105; pulse, 120. The patient to be sponged freely with tepid water, morning and evening.

Sept. 9th.—Morning temperature, 103; pulse, 118; evening temperature, 104: pulse, 120. Slightly delirious, bowels loose, increased abdominal tenderness, tongue dry and sore, teeth heavily coated with sordes. A teaspoonful of alcohol in a wine-glassful of sweetened water every two hours is added to the treatment.

Sept. 10th.—Morning temperature, 103; pulse, 120; evening temperature, 106; pulse, 118. Rested poorly last night; more active; frequent change of position, or picking at the bedding; when interrogated, she answers correctly, yes or no; cough quite annoying, dry and harsh; voids feces and urine in bed; protrudes tongue with difficulty.

Sept. 11th.—Morning temperature, 104; pulse, 130, and tremulous; rested but little last night; bowels moving freely; much prostration.

Thus, from day to day, I observed my patient gradually losing her hold on life, until she was but the shadow of her former self. So far as I was able to form an opinion, the medication availed

but little, and yet the exalted temperature, so rapidly doing the work of destruction, had to be reduced. The use of quinine, as an antipyretic in other cases, had disappointed me, and hence I determined to make trial of the bath, though as I had never before made use of it in the treatment of disease, it was not without some foreboding that the trial was now made. Ziemssen's method of treating typhoid fever was received by me as I fear country physicians receive too many good suggestions, as a probably efficient method in the hands of its author, or in the practice of a large hospital, but wholly inadequate to the purposes of a busy practitioner. At that time I never thought it possible for me to make it available or dreamed of ever daring to employ it.

Having procured a rubber bath-tub, it was placed at the bedside, and partly filled with water at a temperature of 94°, 10° less than that of the patient. She was placed in the tub with a sheet, folded two or three times, arranged so as to prevent the cold water from coming in direct contact with her person. The tub was covered with a sheet, so that she was directly incased, with the exception of the head. Upon the outer sheet the water, fresh from the well, was poured, and left to find its way into the tub. This was continued until she complained of being chilly, when she was removed to the bed and lightly covered, having remained in the bath twenty-five minutes. The temperature of the water was reduced from 94° to 70°.

I should mention the fact that at all times I was governed in the regulation of the temperature by the patient's sensation of cold, instead of by the instruction to reduce the temperature to 68°. Some of the baths given in this case were not reduced to a temperature below 78°, yet the wished-for results were obtained, viz., a decided reduction of temperature, and a complaint on the part of the patient that she was cold. After the bath, the patient's temperature registered 102 2-5°, instead of 104°; and she rested comfortably in bed, without becoming exhausted, as I had feared.

At evening I found she had improved during the day; pulse, 112; temperature, 103—a decrease of 3° since last evening. Another bath was therefore given.

Sept. 12th.—Morning temperature, 101 3-5; pulse, 114;

evening temperature, 102 2-5; pulse, 120. Two baths given to-day. She is quite rational; tongue moist and cleaning; cough not so frequent; asks to use the bed-pan; does not object to taking nourishment.

Sept. 13th.—Morning temperature, 102 2-5; pulse, 112; evening temperature, 103 1-5; pulse, 120. Is doing well. Two baths given in the day.

Sept. 14th.—Morning temperature, 100 3-5; pulse, 114. Is quite bright, and improving her time in removing the sordes from her teeth.

Dr. E. F. Ingals, Assistant Editor of this journal, saw Mrs. C—— with me, last evening and this morning; also concurring in my diagnosis. As her temperature was so much lower than on the previous morning, no bath was given. At evening, however, I found the temperature to be 103 3-5, a little more than on the previous evening; pulse, 120. Another bath was given to-night.

Sept. 15th.—Morning temperature, 102 3-5; pulse, 114; the temperature was higher than on the previous morning. Evening temperature, 102 2-5; pulse, 106. Two baths given to-day. The patient is improving.

Sept. 16.—Morning temperature, 99; pulse, 96; evening temperature, 102; pulse, 106. She has a desire for nourishment, and prefers beef tea.

Sept. 21st.—From the 16th to the 21st inst., the temperature ranged between 99° morning, and 102 3-5° evening.

Sept. 22d.—Morning temperature, 98½; pulse, 92; gave bath at 3 p. m. to-day. The temperature just before the bath was 100 3-5; just after, 99°. The temperature of the water (92°) was reduced to 75°; 7 p. m., temperature, 100; pulse, 96.

Since this date, the bath has been given before the hour for the rise of temperature, and at no time has the temperature advanced above 99 3-5.

Sept. 26th.—Temperature, 98½; pulse, 82. Every symptom is propitious, and a rapid convalescence anticipated.

Sept. 27.—I was summoned in haste at 2 a. m., and found labor had supervened. It slowly advanced until 8 a. m., when the fœtal head having descended, I delivered her with forceps, of

a living, skeleton-like child, which appeared to be about eight months old. The mother passed through her labor far better than was expected, losing but very little light-colored blood.

Sept. 28th.—She rested well during the night, and requested me to state that she is convalescent, and is indebted for it to the bath.

Oct. 10th.—Rapid convalescence from both the febrile and the puerperal states.

After this experience, I feel convinced that merely placing a patient in water is not so much to be dreaded as, on first impression, one is induced to believe. While this mode of treatment requires more time than the visit and prescription of routine practice, it is safe, efficient, and pleasant for the patient, wholly under the control of the physician, and easily comprehended by an intelligent nurse. Quinine, on the other hand, given in large doses in typhoid fever, is unreliable, dangerous, and capable of doing irreparable injury. The same may be said of all arterial sedatives. I am of the opinion that the treatment here recommended would be equally valuable in typho-pneumonia. In Mrs. C.'s case, the dry, hacking cough ceased to be annoying after I had resorted to bath treatment.

The details given above of the treatment of this case, are taken from notes carefully made by myself at the time of each visit, and I shall not regret their publication if they shall, in any degree, contribute toward relieving others of that timidity with which many are disposed to regard new methods of treatment—those especially which have come to us from abroad. I might add, that the case is published also with a view to inducing others to make a fair trial in typhoid fever of the bath of decreasing temperature.

REPORT ON 565 CASES OF EYE DISEASES TREATED AT THE CENTRAL FREE DISPENSARY.

By William T. Montgomery, M.D., Chicago.

(*Read before the Chicago Medical Society Dec.* 3, 1877.)

During the past two years I have treated at the Central Free Dispensary, 565 patients affected with diseases of the eye. We had 108 affections of the lids; 24 of the lachrymal apparatus; 192 of the conjunctiva; 138 of the cornea; 31 of the iris and choroid; 26 of the lens; 18 of refraction and accommodation; 12 of optic nerve; 12 of the muscles; and 4 of the globe.

Of the 108 affections of the lids there were: eczema, 14; blepharitis ciliaris, 59; hordeolum, 6; ulcer of lids, 4; trichiasis, 13; entropium, 4; chalazion, 8.

I shall only notice one disease of this group as being of interest to the general practitioner. Blepharitis ciliaris comprises more than half of the whole number of lid affections, 59 in 108. This is essentially an ulcerative inflammation of the edges of the lids and ciliary follicles. As impure air, uncleanliness, and improper nourishment, are common causes of blepharitis, we have in the bad hygienic conditions of most dispensary patients, elements favorable for its production. Of the 59 cases here presented, 37 were under 10 years of age, and a large per cent. of the whole number presented evidences of the strumous diathesis. Tonics entered largely into the treatment of these cases. Quinine, iron, and cod liver oil were the favorite remedies. The local treatment was as follows: thorough cleansing of the edges of the lids, and keeping them free from the crusts which form so rapidly in this affection. When these were thick and firm, I either removed them in the first instance myself, or ordered warm fomentations until they were softened, and were easily removed by the attendants. Some form of mercurial ointment (usually the red oxide) was prescribed, to be applied to the edges of the lids night and morning. In some of the severer and more obstinate cases, the edges of the lids were

brushed with the nitrate of silver solution, grs. xx. to xl. to ℥ i., two or three times a week. Of the 24 affections of the lachrymal apparatus, there were eversion of puncta, 12; abscess of lachrymal sac, 3; stricture of nasal duct, 9. I will not occupy your time with either of these.

The 192 conjunctival affections were as follows: catarrhal conjunctivitis, 122; granular conjunctivitis, 45; phlyctenular conjunctivitis, 8; purulent conjunctivitis, 6; infantile conjunctivitis, 1; pterygium, 7; burn of conjunctiva, 2; epithelioma of conjunctiva, 1.

Catarrhal conjunctivitis numbers more than half of the diseases of the conjunctiva here presented, 122 in 192. Of the whole list of eye diseases, none yield more readily to proper treatment than does this, but neglected or improperly treated, it may become chronic and obstinate. In the milder cases, I have generally brushed the conjunctiva with a gr. iii. to ℥ i. sol. of silver nitrate, and prescribed gr. ii. sol. of sulphate zinc, to be dropped into the eyes two or three times daily. This, together with cleanliness, and protecting the eyes from all causes of irritation, was all the treatment required in these milder cases.

For the more severe cases, a stronger solution of nitrate was used; but seldom stronger than gr. v. to the ℥ i. This was applied once daily, and the patient given a weak astringent solution to use at home once or twice daily. To prevent the gluing together of the lids, the patient was directed to grease the edges at night with fresh lard or cream. If the edges of the lids were excoriated, the red oxide ointment was ordered.

I do not wish to convey the impression that nitrate of silver is the only remedy I have used in the treatment of catarrhal conjunctivitis, but I must say it is the best remedy I have used in this disease, as well as in purulent conjunctivitis.

Acetate of lead, gr. v. or gr. x. to ℥ i., is the next most efficient remedy in catarrhal conjunctivitis.

The patient's general and hygienic conditions were made as good as possible.

Of the 192 conjunctival affections, there were 45 cases of granular conjunctivitis. This is essentially a disease of adult life. Of the 45 cases, but one was under 15 years of age, 5 over

50. Some eminent authorities have maintained that it is frequently due to constitutional causes. This has not appeared to be true of the cases here presented. While I am not able to give the exact number of cases which presented any evidence of the scrofulous or other diathesis, I am sure it was not sufficient to enter into account as a cause. It is true a large per cent. of these cases were in a weakened debilitated condition, but I am inclined to adopt the views of Soelberg Wells; "that the ill-health is often, rather the effect than the cause, for the very protracted course of the disease is sure to tell more or less severely upon the health and spirits of the patient."

As to the treatment of granular conjunctivitis, I haven't anything very encouraging to offer. This disease has long been, and still remains, an eye-sore to the profession. But since the pathology of the disease has become better understood, the treatment, if not more successful, has been less harmful. I think it is unanimously conceded now, that true granulations are not simply enlarged papillæ, but new formations, neoplastic growths. And that the object of treatment is not to burn out, or chemically destroy them, but to keep up sufficient irritation or inflammation to cause their absorption.

The remedies which have been recommended and used with more or less benefit in the treatment of this disease, include almost the entire list of caustics, irritants, and astringents. I do not consider the choice of remedies as important as the proper application of the remedies chosen. Yet, it is perhaps true, that every one who has had any considerable experience in the treatment of granular conjunctivitis, has settled upon some favorite remedy. I must admit that this is true with myself, and the local application I have used most in the treatment of these cases, is what I shall term the sulphate solution. I first began to use this solution over two years ago, at the suggestion of my friend Dr. Holmes. The following is the formula: Ferri sulph., zinci sulph., cupri sulph., and alum. sulph., equal parts in distilled water. A ʒ i. of each to fʒ i., makes a saturated solution. I keep a solution of this kind, and dilute it as the case may require, occasionally using it full strength. While the strong solution is a pretty severe application, and requires to be used cautiously, it

is not caustic, and the pain it produces, though more severe for a few minutes, does not last as long as that produced by the application of blue stone.

I have generally used a solution containing gr. v. of each to ʒ i. of distilled water, applying with a brush once daily.

A large per cent. of the cases of chronic granulations have more or less vascularity or roughness of the cornea, and it is in these cases that I have found this solution especially useful. I seldom use the saturated solution, but in cases with dense pannus, great intolerance of light and spasm of the lids have found happy effects from its use. I do not present this solution as a specific for granulations, or as being the only remedy I use in the treatment of this disease, but as being the best application I have used. The next best remedies are blue stone, red or yellow oxide of mercury ointment, nitrate of silver, and acetate of lead in the order named. Quiniæ sulph. dusted on the conjuntiva once daily, I have found to act happily in relieving photophobia and spasm of the lids, but have not observed that it has any effect upon the granulations.

I have looked upon the affection as purely local, but have tried to improve the general condition where I found it bad.

We have 134 corneal affection, as follows: ulcer of cornea, 19; wound of cornea, 11; abcess of cornea, 6; mote in cornea, 3; phlyctenular keratitis, 47; vascular keratitis, 12; interstitial keratitis, 6; leucoma, 13; staphyloma, 5; pannus, 12.

Of this group we shall only notice phlyctenular keratitis, which comprised nearly one-third of the whole number of corneal troubles. This number I think fairly represents the relative frequency with which the disease is met, and its relative importance to the physician.

Phlyctenular inflammation of the cornea, so far as the cases here presented are concerned, is as much a children's disease as any that is classed as such. The books on diseases of the eye tell us that "this is a disease most frequently met with in children from six to twelve years of age." Of the number here presented, thirty-two were under six years of age, and only three were over twelve. This disease has been termed by some, and not inappropriately, scrofulous corneitis.

If there is one eye disease met with in dispensary practice, that more imperatively than any other demands attention to the general condition it is this. Indeed, so strongly have I been impressed with this truth that I have almost fallen into the routine practice of prescribing tonics in every case of this affection.

My favorite remedies are the syrup of the iodide of iron and cod-liver oil, together with as nourishing food and good hygienic conditions as possible. If the little patient is unable to take the pure oil, I have lately been in the habit of prescribing Scott's emulsion, which is easily taken, and is an excellent substitute for the pure oil.

Quinine and Fowler's solution of arsenic are useful tonics in this disease. The latter is more especially indicated in cases accompanied with an eczematous rash of the face. If it is important to attend to the general health in this disease, we must not do so to the neglect of the local treatment. We sometimes get wonderful results from local treatment alone. But to successfully combat that most harrassing feature of the trouble—the great tendency to recurrent attacks of the inflammation—we must be on the alert with both general and local treatment. I need not remind those who have had any experience with phlyctenular keratitis, that the most striking characteristics of the disease are the photophobia, blepharospasmus, and general nervous irritability of the patient. Indeed these symptoms are almost pathognomonic, and, when present in a marked degree, the local remedy is atropine. My practice has been to prescribe atropiæ sulph. gr. ii. to ℥ i. of distilled water, to be dropped into the eye once in two hours, until the pupil is fully dilated, and three or four times a day afterward. If the spasm of the lids is very great, I make the first applications myself, and charge the parents to make sure of getting the drops in the eye every time at home. The effect of atropine in this disease is sometimes truly marvelous. It acts as a local anæsthetic upon the cornea, relieving the irritability of this structure and the ciliary nerves. It also diminishes the intra-ocular tension, and, by thus lessening the pressure upon the cornea, favors its nutrition and reparation.

As soon as the irritability is relieved, we begin to dust upon the cornea once daily, the mild chloride of mercury. This,

besides hastening the absorption of opacities remaining, is one of the most efficient remedies we have in preventing relapses of the inflammation. The red or yellow oxide of mercury gr. ii. to ʒ i. of lard or glycerole of starch are equally good, but are not so convenient for me to use.

Of the 31 affections of the iris and choroid, there were 19 cases of iritis; kerato-iritis, 4; irido-choroiditis, 7; and glaucoma, 1. We can only very briefly refer to one of this group—iritis. While this disease is not so frequently met with as the others referred to, it is important, from the fact that neglect or improper treatment is more apt to produce permanent injury to the eye.

Iritis is not a favorable disease to treat in dispensary practice, because two important factors in its treatment—rest of the eyes and exclusion of light—are denied.

It is not long since mercury was considered almost a *sine qua non* in the treatment of this disease. If there is anything in medicine I am conservative in, it is in the internal use of this drug. I make it a point never to administer it in the treatment of iritis, unless there is evidence of specific trouble, until I have given local medication a thorough trial.

In the treatment of these cases, I do not remember a single case of non-specific iritis that did not yield without the use of mercury.

As a local application, we have in atropine a remedy that in most cases of iritis meets all the indications. 1st. It dilates the pupil, and prevents adhesions between the iris and capsule of the lens. 2d. It paralyzes the accommodation, and puts the eye in a state of rest. 3d. It lessens the eye tension, and thus relieves the intra-ocular circulation and diminishes the congestion of the iris. 4th. It relieves pain.

But to get the full effect, a strong solution must be used, at least gr. iv. of the sulphate of atropia to the ℥ i. of distilled water. I try to see the patient once a day, and drop the solution into the eye myself, four or five times, at intervals of a few minutes, and direct the patient to use it at home every hour. After the eye is well under the influence of the atropine, four or five times a day is often enough to use it. If the pain is severe, hot fomentations applied to the eye is my first additional resort; second, leeches to

the temple; and third, morphia. The eyes are protected from the light, and other sources of irritation, as well as possible. The patient's bowels are kept regular; the skin and kidneys active.

Of the remaining eye affections, we have cataract, 24; dislocation of lens, 2; neuro-retinitis, 4; atrophy of optic nerve, 4; amblyopia, 4; asthenopia, 4; myopia, 4; hypermetropia, 6; strabismus convergent, 7; divergent, 1; paralysis of third nerve, 1; paralysis of sixth nerve, 3; panophthalmitis, 2; atrophy of globe, 1; tumor of orbit, 1.

Clinical Reports.

NOTES FROM PRIVATE PRACTICE.

A Case of Ovariotomy.

Mrs. S. B. D. L.—Mother of two children, of good constitution and fair health, began to notice in the summer of 1874, an enlargement of the abdomen. During the fall she was seized with a severe attack of violent paroxysmal pain, which confined her to her bed for several days, after which the tumor in the abdomen could not be felt. In the summer of 1875 it began to enlarge, and she called upon Dr. E. R. Willard. He then diagnosticated an ovarian tumor, about four inches in diameter. After this the abdomen slowly increased in size, until the 28th of August, 1875, when she was seen by Dr. A. W. Heise, of Joliet, Ill., who advised paracentesis, which was performed by Dr. Merriman, and twelve pounds of albuminous fluid evacuated. Four weeks later, the sac having rapidly refilled, and the pressure becoming great, it was thought best to again relieve the patient by tapping, which was done on the 30th of September, and twenty pounds of very thick albuminous fluid removed.

On Oct. 20th, the sac having nearly refilled, her father and husband said that if Dr. E. R. Willard, in connection with Dr. Merriman, of this place, would undertake the removal of the tumor, they "would be entirely satisfied, let the result be what it might." The patient had been taking the elixir of iron and bark for several weeks; this was ordered to be continued.

The bowels were moved on the 25th, by a dose of senna and magnesium sulphate.

At 12 m., Oct. 26th, she was given brandy. At 1:30 p. m., etherization was commenced by Dr. G. E. Willard, in a room brought to a temperature of 32° C. The patient having been etherized, an incision reaching from near the umbilicus to the symphysis was made, the peritoneal cavity entered, and the peritoneum divided between the fingers. The tumor was then seized with a pair of duck-bill forceps, the patient partially turned upon her left side, an opening made in the tumor with a bistoury, and the fluid evacuated as quickly as possible by enlarging the opening and introducing the hand into the tumor and breaking up the cysts from the inside, thereby preventing the fluid from coming in contact with the peritoneum.

The adhesions were slight, and easily broken up. After drawing the tumor through the abdominal parietes, the pedicle was secured with Spencer Wells' clamp, and severed; the abdomen sponged with fresh, warm, carbolized water (the hands, sponges, and instruments were all dipped in carbolized water before use about the patient), and the wound closed with silk sutures according to the plan of Spencer Wells—pledgets of cotton, dipped in carbolized oil, were placed upon the wound and around the clamp; when the entire abdomen was covered with cotton wool two inches in thickness. A flannel bandage was then pinned moderately tight over the whole, and the patient put to bed.

The weight of the entire tumor, fluid and solid, removed in the operation, was thirty pounds. Time occupied in the operation, twenty-five minutes.

Thirty minutes after the operation, pulse, 86; temperature, 36°†; 6 p. m., pulse, 88; temperature, 37½°; directed beef essence every four hours.

Oct. 27th, 3:30 a. m., pulse, 100; temperature, 37 8-10°; urine drawn every four hours; 8 a. m., pulse, 100; temperature, 37 8-10°; 12:30 p. m., pulse, 96; temperature, 38°; 6 p. m., pulse, 100; temperature, 38¼°.

Oct. 28th, 4 a. m., pulse, 100; temperature, 37½°; 9 a. m., pulse, 100; temperature, 37 6-10°; some nausea; 6 p. m., pulse,

† The temperature in this case is stated throughout as registered on the Centigrade scale.

114; temperature, 38 1-10°; nausea increasing; has retained only one-half pint of milk in the last twelve hours; vomited several times in the course of the day; ordered five grains of citrate of iron every six hours, and one-sixteenth of a grain of morphine every six hours alternately with the iron; gave two ten-grain doses of the sub-carbonate of bismuth, at an interval of thirty minutes, to correct the acidity of the stomach.

Oct. 29th, 8 a. m., pulse, 105; temperature, 37 6-10; has hiccough every ten to twenty minutes; 1 p. m., pulse, 105; temperature, 37 8-10°; has had one-eighth grain morphine at 1 a. m. and 8 a. m; 6 p. m., pulse, 108; temperature, 37 3-10; gave two grains of quinine.

Oct. 30th, 8 a. m., pulse, 94; temperature, 37°; gave hypodermic injection of one-eighth grain of morphine at 11 p. m. last night; hiccough less; retains solid food; passed urine naturally; gave one pint of warm water as an injection, with a few drops of carbolic acid 95 per cent.; has taken two grains of quinine every four hours the past twenty-four hours; 6 p. m., pulse, 92; temperature, 37 6-10°; gave one-eighth grain of morphine hypodermically.

Oct 31st, 8 a. m., pulse 92, temperature 37 6-10°; hypodermic injection of $\frac{1}{8}$ gr. morphine; sickness increasing; 6 p. m., pulse 105, temperature 37 7-10; ordered lime water and milk as an exclusive diet.

Nov. 1st, 8 a. m., pulse 95, temperature 37 6-10°; nausea and hiccough relieved; added mutton broth and crackers to lime water and milk; no medicine; 6 p. m., pulse 104, temperature 37 7-10°.

Nov. 2d, 8 a. m., pulse 103, temperature 37 2-10; some appetite, fish and potatoes added to diet; 6 p. m., pulse 107, temperature 37 7-10°.

Nov. 3d, 8 a.m., pulse 97, temperature 37°; removed all the sutures, clamp not sloughed off; 6 p. m., pulse 105, temperature 39°; appetite good.

Nov. 4th, 8 a. m., pulse 120, temperature 37$\frac{1}{2}$°; 6 p. m., pulse 125, temperature 39°.

Nov. 5th, 8 a. m., pulse 120, temperature 37$\frac{1}{2}$°; clamp removed; wound closed entirely by first intention; 6 p. m., pulse 120, temperature 37°; bowels moved by injections.

Nov. 6th, 8 a. m., pulse 110, temperature 37 3-10; 6 p. m., pulse 104, temperature 37 8-10.

Nov. 7th, 8 a. m., pulse 100, temperature 37°; patient feels well, wants to get out of bed, thinks she is able to be up; ordered 5 gr. doses of bromide of potassium, for a slight smarting sensation after passing water.

Nov. 8th, 8 a. m., pulse 110, temperature 37½; 1 p. m., restless, gave ½ gr. of svapnia; 6 p. m., pulse 118, temperature 38°; gave a cathartic of castor oil.

Nov. 9th, 8 a. m., pulse 125, temperature 37½°; 6 p. m., pulse 124, temperature 38½°; bowels moved at 3 p. m.

Nov. 10th, 8 a. m., pulse 112, temperature 37½; ordered 4 gr. doses of cinchonidia every four hours.

Nov. 11th, 8 a. m., pulse 102, temperature 37½.

Nov. 12th, 8 a. m., pulse 110, temperature 37°; is permitted to sit up two or three hours in the day. After this the patient rapidly improved, and is now quite out of danger.

E. R. WILLARD, M. D.

WILMINGTON, November, 1877.

NOTES FROM HOSPITAL PRACTICE.

Carcinoma of Tongue.—Partial Ablation.

A remarkable case of epithelioma of the tongue recently came under the notice of the staff of the Albany (N. Y.) City Hospital. The patient, J. D., æt. 74, Irish by birth, and mentally infirm, came to the hospital in January, 1877. He gave no history of his lesion, but a malignant growth was discovered on the under surface of the left side of the tongue, involving nearly one-half of the organ. Ulceration had already begun, and had resulted in a considerable excavation, while the body of the tongue was hard and semi-indurated. There was the characteristic pain of carcinoma, sharp and lancinating at night after exertion, heavy and dull in the early part of the day. The tongue still retained its normal size, and preserved its natural color, save in the diseased portion, where it was superficially of a brownish-gray hue. Deglutition was impaired even then, and articulation was

difficult, every word being muffled and indistinct. The general health, considering the age of the patient, was far from good, and though he was in good spirits, it was clear that the disease was progressing.

Dr. Vanderveer, of the staff, diagnosticated a carcinomatous lesion, and it may be said that any other diagnosis would have been impossible. It was a case of carcinoma, of epithelial type, in a most difficult location for topical treatment, already so far advanced as to present formidable features.

The treatment proposed was necessarily severe. A cure was virtually impossible. Alleviation was the only alternative.

Electrolytic treatment by the use of the galvanic cautery was tried on six several occasions. At first the advance of the disease was arrested, and seemed under temporary control; but the disease spread insidiously, gradually involving more and more of the tissues, and provoking sympathetic enlargement of the cervical glands. On Oct. 27, the cautery was used for the seventh time, and then abandoned as useless. In the ten months that had passed since the patient's entrance to the hospital, although the carcinomatous cachexia had become more actively developed, his systemic condition was better than one year before.

A consultation of the hospital staff was held, and the operation of ablation of the tongue was deemed advisable so far as to remove the diseased growth. This operation was performed Nov. 14, by Dr. Albert Vanderveer, assisted by Drs. Ward and Hailes.

The patient anæthetised, the tissues from the middle of the lower lip were divided in a perpendicular line to the symphysis mentis, and reflected. The inferior maxilla was then sawn in two at the symphysis, after the method of Syme. The fore-finger of the operator was then inserted into the opening under the tongue, and the knife thus guided, used to divide the mucous membrane of the mouth and the sub-lingual muscles.

The lingual artery of the affected side was ligated and divided, the hemorrhage being thus almost entirely arrested. These preparatory steps being successfully performed, the diseased growth was laid before the surgeon ready for action.

The galvanic cautery, in the form of a loop of platinum wire, was applied around the diseased part of the organ, and by two operations the morbid tissues effectually cut away, about one-third of the tongue being left. The hemorrhage was inconsiderable, and the operation satisfactory in all respects to the surgeon and his assistants. A number of physicians were present to witness the operation.

The patient presents a favorable prognosis, and permanent success may be hoped for. W. H. M.

ALBANY, N. Y., Nov. 15.

Society Reports.

Indiana, Illinois and Kentucky Tri-State Medical Society.

The Third Annual Session of this Society was held in the city of Evansville, Ind., Oct. 16, 17 and 18, 1877.

The Society was called to order at 11 a. m. by Dr. J. W. Compton, Chairman of the Committee of Arrangements, Dr. G. B. Walker, acting as chairman *pro tem.*, Dr. G. W. Burton, Secretary, Dr. J. W. Singleton, Assistant-Secretary, Dr. F. W. Beard, Corresponding Secretary.

After prayer by Rev. Dr. C. B. H. Martin, Hon. J. J. Kleiner, Mayor, followed with a speech of most cordial welcome in behalf of the city. Dr. M. J. Bray followed with an address in behalf of the profession.

He gave the Society a brief medical and local history of the "Crescent City of the North," with his own experience in the earlier days of Evansville, drawing a comparison between ancient and modern medicine.

(When the doctor located in Evansville the principal hotel was a "one-story log hut.")

Adjourned until 2 p. m.

The Society was called to order pursuant to adjournment, by Dr. W. H. Byford, the President. Dr. J. S. Jewell, of Chicago, being called upon to address the Society, gave a brief extemporaneous account of the vaso-motor nervous system. The

Doctor presented several practical considerations of importance in his remarks.

Dr. W. S. Porter, of St. Louis, Mo., then read a paper on "Syphilis of the Air Passages." After a discussion by Drs. T. Keller of Hot Springs, Ark., Hibberd, of Richmond, Bray, Lenthicum, Walker, Jones and Owen, of Evansville, the opinion prevailed that the disease was transmitted to the offspring by the male parent.

Dr. J. W. Compton then read a paper on "State Medicine and Hygiene;" dwelling particularly on epidemic cholera, small-pox, typhoid fever and epidemic dysentery; urging the necessity of a State Board of Health. The Chair appointed Drs. Denning, of Ill.; Letcher, of Ky., and Beard of Ind., a committee on time and place of next meeting.

Adjourned until 7:30 p. m.

The Society met pursuant to adjournment.

Dr. G. B. Walker read a paper entitled, "Observations and Experience in Practice, Particularly with Reference to Obstetrics;" which included a report of 824 cases, giving the per cent. of different presentations, instrumental cases, eclampsia, post-partum hemorrhage, etc. The President compared it to the relation of a soldier's experience after a long and honorable campaign.

The President appointed the following Committee on Nominations: Drs. Gerrish, Indiana; Pritchell, Kentucky; and Fairbrother, Illinois.

Adjourned to 9 a. m. Wednesday.

Wednesday—Second Day.

Society called to order at 9 a. m., Dr. Byford in the chair.

Dr. J. F. Hibberd, Richmond, Ind., read a paper on "The Instinctive Operations of the Human System, and how they may be Utilized in the Management of Certain Diseases, and more particularly in Functional Intestinal Constipation."

The Doctor defines instinctive operations thus:

"When a child is born, on the instant it breathes and cries. Both these operations are demonstrated instinctive, because they are performed by a living being from unreasoning impulse,

unconsciously and involuntarily. The operations of defecation, micturition, and nursing, which follow in early succession, are of the same nature."

Dr. J. W. Singleton, Paducah, then read an essay on "Social Conservatism."

Adjourned to 1 p. m.

The Society met pursuant to adjournment.

Dr. Singleton (by request) read a paper by Dr. J. L. Cook, Kentucky, on "Malarial Coma."

Dr. J. J. A. Ireland, Louisville, Ky., read his report to the Section on Obstetrics and Gynecology, relating to "Some of the duties of the Obstetrician and Gynecologist." The Doctor drew a pen picture of the great works in this department of medicine.

The Committee on Nominations reported the following officers for the ensuing year:

President, J. F. Hibberd, Richmond, Ind.; First Vice President, F. W. F. Gerrish, Seymour, Ind.; Second Vice President, J. W. Singleton, Paducah, Ky.; Third Vice President, H. C. Fairbrother, East St. Louis, Ill.; Secretary, G. W. Burton, Mitchell, Ind.; Treasurer, F. W. Beard, Vincennes, Ind.

Committee on Publication—Drs. Compton, Walker, and Lenthicum, of Evansville.

Standing Committee: Surgery and Anatomy—J. W. Thompson, Kentucky; Practical Medicine—S. H. Charlton, Indiana; Obstetrics and Gynecology—J. Hale, Kentucky; State Medicine—J. H. Letcher, Kentucky.

Special Committee—Influence of Thermal Waters in the treatment of Disease: J. M. Keller, Hot Springs, Ark.

The report was unanimously adopted.

Dr. Dudley S. Reynold, of Louisville, then read a paper on "Cistoid Cicatrix."

Dr. S. E. Munford, Ind., followed with an essay in answer to the question, "Is meddlesome midwifery bad?" (The discussion growing out of the question would lead young practitioners to believe that the profession are not agreed upon all points.)

The President appointed as a Committee on Necrology, Drs. Hibberd, Smith and Pennington, to report upon the loss of the

Society, in the death of Dr. Ezra Read, and Dr. J. B. Armstrong, of Terre Haute, Ind.

Dr. Edwin Walker then read a report on "Syphilis of the Nervous System."

Adjourned to 7:30 p. m.

At night the old Cumberland Presbyterian church was filled to its utmost capacity, to hear the address of the President, Dr. W. H. Byford, on "Some of the Evils Resulting from our Rapid Advance in Civilization." The Doctor's address was well received by the profession, and by the citizens of Evansville. Adjourned to 9 A.M., 18th.

The Society met pursuant to adjournment, the President in the chair.

Dr. J. H. Letcher, of Ky., read a paper on "Intestinal Inflammation in Children." Dr. J. E. Harper, Ind., presented a report on the "Anomalies of Accommodation and Refraction." Dr. L. B. Harvey, Indianapolis, presented a paper on "The use of the Elastic Ligature in the Treatment of Various Forms of Fistula." Dr. J. M. Keller, Hot Springs, Ark., spoke briefly of the success of the Tri-State Society, and its valuable results to the profession. Dr. T. M. Stevens, Indianapolis, read a paper entitled, "Some Thoughts Connected with the Public Health of Indiana." Dr. G. W. Bental presented a short paper entitled, "Facts for the People." Drs. Stevens, Compton, and Burton, were appointed a committee to prepare the papers on State Medicine, and have them published in the journals.

Dr. Byford introduced his successor, Dr. J. F. Hibberd, of Richmond, Ind., who gratefully acknowledged the honor bestowed on him.

On motion of Dr. Letcher, Ky., the thanks of the Society were unanimously tendered Dr. Byford, for the faithful performance of the duties of his office. Adjourned to meet in the city of Springfield, Ills., 2d Wednesday in Nov., 1878.

G. W. B.

The BRAINARD DISTRICT MEDICAL SOCIETY, met in November, 1877, with thirteen members in attendance. Dr. M. Hurst, of Sweetwater, read a paper describing a case of compound fracture

of the tibia and fibula; Dr. H. B. Brown reported a case of popliteal aneurism; Dr. J. D. Whitley, of Oakford, reported a case of belladonna poisoning; Dr. J. P. Walker reported a case of tubal pregnancy; Dr. M. Hurst described two cases of shoulder presentation; Dr. Walker read a communication from Dr. Jennings, of Delaware, containing a report of a case of vesico-vaginal fistula, and a paper by himself on the use of the obstetric forceps.

A resolution was adopted, making the CHICAGO MEDICAL JOURNAL AND EXAMINER the official organ of the association.

Editorial.

MEDICAL CIVIL SERVICE REFORM.

In the day when the much vexed question of civil service reform is testing the cohesiveness of the great political organizations of this country, it is proper that medical men should enquire respecting the operation, as regards themselves, of the principles which at present control in civil appointments.

Looking at the medical corps of the military establishment, we find a body of men eminently fitted in all particulars for the discharge of their important functions. They command the high respect of the profession at large and of their associates in the "line" of the army and navy, achieving for themselves abroad a reputation based upon scientific and literary contributions of the greatest value. All this is the natural result of the operation of a very simple law. The positions of these gentlemen are obtained by success in competitive examinations. Of all applicants those best qualified, mentally, morally and physically, secure commissions. This is the system which prevails in Europe, and in accordance with which every medical man, from the hospital interne to the university professor obtains position.

By an unhappy inconsistency, the principle which was deemed essential to the welfare of the military service, and which has there produced such admirable fruit, has been utterly disregarded in the selection of medical men for the civil list. In the marine

and pension services, surgeons and assistant-surgeons become such by political preferment. Not only in the offices of the general government but in those also of the states, cities and counties of our country, the appointment of physicians is determined by a system which has produced results that are often not merely deplorable, but positively disastrous.

Here in the State of Illinois, the county of Cook, and the city of Chicago, the consequences of such a policy have been sufficiently conspicuous to be seen and read of all men—consequences which are at once a reproach to the profession and a scandal to the public. There is no need of mincing words when dealing with a great outrage of this sort. Medical men have been appointed to office because of their political influence or affiliations; or because they were relatives of those in power, or to satisfy the greedy clamor of the applicants themselves, or for purely private and personal reasons; never solely because they were fit and qualified.

By that singular chance which occasionally evolves good from evil, and produces a rose-tree upon a dunghill, some of these offices have been held by worthy men. But what shall be said of the rest—some, the feeble and superannuated relics of a past mediocrity; others, disappointed aspirants for private patronage, who seek to supplement their failure by pickings from the public purse; professional incompetents and impotents; disciples of drink, who are not ashamed of their intoxication upon the public thoroughfares; students of medicine unprovided with a diploma, and even without that cheap-jack sort of education which too many diplomas attest; country practitioners removed to the city solely because an enterprising and not too scrupulous relative embarked in politics—the tale cannot be fully told! It is but a few weeks since a judge upon the bench had occasion to condemn the inefficiency of one of these folk.

Meantime, the large body of medical men have been either too much absorbed in their private business to bestow any attention to this subject, or, recognizing the evil, have contented themselves with characterizing in private, the farce played before the public. Many such have signed applications for the appointment of others, from indolence, fear of offending a friend, or from ignorance of the incapacity of the applicant.

Only they who think success possible for themselves, will submit to competitive examination, when merit is to decide the issue; and only these, in a similar way, will compete in the base struggle for office, who are conscious that they possess the requisite talents—the ability to push, to beg, to fawn; to descend to the level of the creature of the dram-shop and the bar-room politician.

There is not an office for which a medical man is required, within the territorial limits of the State, which should not be assigned to the successful competitor in examination. There is not, to-day, a competent medical officer within the same limits, who should not retain his position, so long as he faithfully and efficiently discharges its duties. He also who is worthy, should be advanced from the lower to the higher grade of duty. How much honor would a medical staff, thus constituted, reflect upon the body of the profession in this State! What a laudable ambition might be excited in the mind of the student of medicine by the contemplation of the just reward of indefatigable industry!

In the absence of any provisions to insure such a result, medical men should see to it that they put themselves right upon the record. They should not for a moment countenance the prevailing loose, and often disreputable, methods of obtaining office. A notable and honorable precedent was recently established by the Governor of Illinois, in convening the medical profession of Chicago, with a view to the nomination of a member of the State Board of Health—the nominee in this instance having received the appointment. Let the profession at large regularly nominate, by such methods as they think will secure the desired end, proper men for all medical offices, and, whether their nominations are or are not accepted, the result will be to secure a popular approval of their efforts at reform.

We are not so credulous as to suppose that the contemplated results can be accomplished in an hour. But it is one of the redeeming features of our crude aud defective system of self-government, that agitation always insures some sort of reform. In the matter of slavery, the people of the United States began by stoning the apostles of abolition, and concluded with radical and irrevocable emancipation.

And we cannot but believe that if the mass of medical men are thoroughly aroused to a sense of their high privilege and duty in this matter of medical civil-service reform, they will, in the end, accomplish the much-desired result.

Correspondence.

LETTER FROM PARIS.—THE EMPLOYMENT OF THE SALICYLATE OF SODA FOR RHEUMATISM, GOUT, ETC., IN SCOTLAND, FRANCE, AND GERMANY.

There is probably no disease in the whole nosology, that has had so many vaunted remedies brought forward from time to time for its treatment, as acute rheumatism; each in its turn enjoying a brief period of popularity, and sinking into obscurity after being tested and failing to meet the expectation of the profession.

Most of us who have been in practice for a term of years, can remember some case of this disease, in the management of which we have failed to secure the good opinion of our patient.

Among the last of the remedies that have been brought to our notice for the treatment of this most troublesome disease, are salicin and the salicylates.

Since my arrival in Europe, I have taken every opportunity to consult the leading physicians in the different hospitals that I have visited, in order to gain from them their views in regard to the efficacy of these remedies in the treatment of the above disease.

My first observations and inquiries were made at Edinburgh and Leeds, and the facts that I there elicited were published in an article that I contributed to the New York *Medical Record* of Sept 1st, 1877, and from which I shall draw in part in what I shall have to say in this communication.

In Edinburgh I found the remedy in poor repute.

Prof. Sanderson declared to me that, after trying the salicylic acid to his entire satisfaction, he had become convinced that it was worse than useless in the treatment of acute rheumatism, on

account of its tendency to derange digestion, and lower the vitality of the patient, without eradicating the disease for which it was given.

After testing alkalies with the same unsatisfactory results, he now treats the disease entirely expectantly, shielding the parts involved from the air by carded wool, over which he applies oiled silk, administering anodynes to relieve pain when urgently demanded.

But, from what I have since learned, I am more than suspicious that his want of success arose from his not using the remedy in an efficient manner. Moreover, the preparation that he employs is not that which is preferable.

It will be seen from the title of this article, that I refer only to salicylate of soda. I do so in order to impress the reader with the idea, that this preparation of the salicylates, and this one *only*, should be used in the treatment of acute rheumatism, for reasons that I shall take occasion to mention.

In Dr. Jacobhouse, physician to the Leeds Infirmary, I found one of the most enthusiastic students I ever met, and would add that he who travels through Europe for the purpose of making hospital and clinical observations, and does not, when in this city, visit the Leeds Infirmary, will have reason to regret it.

Dr. Jacobhouse, when I first made his acquaintance, had just concluded a series of observations on the treatment of rheumatism by the salicylates, and he entered at once into the spirit of my inquiries and gave me every assistance in his power.

His statistics included seventy-seven cases of acute rheumatism treated by the remedy under consideration.

In forty-five of these cases, the action of the drug was so marked that its value could not be doubted.

In these 45 cases the average duration of the disease was only three days, the longest being seven, and the shortest one day.

But in the whole 77 cases there were only five in which the remedy proved an entire failure.

Three of these proved fatal, two from the accession of typhoid symptoms, and one from the supervention of a cerebral complication.

The two classes of cases least benefited by the drug, were those of moderate severity, and those in which there existed extreme hyperpyrexia.

In the last mentioned class of cases, the cold bath was added to the other treatment with excellent results.

Cardiac complications supervened in only two out of the 77 cases after the treatment was begun.

In the management of the patients, the plan pursued was to allow them to remain in the wards well covered up in bed for from one to three days, before any active treatment was instituted. This was done in order to observe whether the disease was one of a true rheumatic character, or only an abortive form of the complaint.

The doctor tested, in the treatment of these cases, salicin, salicylic acid and the salicylate of soda; and although each exercised a powerful influence in arresting the disease, he believes that the last mentioned preparation acted most energetically, and, as it is the most pleasant to the taste of the patient, as well as least disturbing to the stomach, he gives it the unqualified preference.

The plan pursued was to put the patient upon the salicylate of soda in thirty grain doses every four hours, until the temperature was reduced to the natural standard, and all other symptoms ameliorated.

After this result had been obtained, the remedy was given three times a day for a week or ten days, to prevent a relapse.

In looking over the records of the cases, I found the influence of the remedy upon the temperature of the patients was most marked. In 40 of them it was reduced to the natural standard within twenty-four hours, and never arose again.

If the remedy produced symptoms akin to cinchonism, the dose was reduced, but not discontinued.

In London I did not find any enthusiasm among those with whom I conversed on the subject, in favor of the salicylic treatment of rheumatism.

Even in so late a work on the Practice of Medicine as that of Dr. Bristowe, an article on acute rheumatism, only refers to the remedy in these words: "Salicylic acid in hourly doses of from

7 to 15 grains, has recently been largely employed, especially in Germany, with reputed success."

The author proceeds to recommend the use of free diluents in the form of lemonade, keeping his patient warm in bed, as a principal resource in the treatment of this disease.

When I arrived in Paris, I found the subject of the therapeutical effects of the salicylates under discussion before the Academy of Medicine, which discussion was elicited by a series of original articles read before that august body, by Prof. Germain Sée. These papers were all published in *La France Médicale*, and as I not only translated these, but also interviewed on several occasions, Prof. Guéneau de Mussy, of the Hôtel Dieu, I proceed to give below in a greatly condensed form, some of the facts elicited.

After a learned account of the discovery of salicin in 1830, by Leroux of Vitry, in France, the author of the paper dwells at some length on the different salicylates, as well as the diseases for which they have been given, and, summing up his experience in their use, says: "It is the salicylate of soda that I now almost exclusively employ."

A large number of experiments upon animals, to test the physiological effects of the remedy, are detailed at length.

These experiments demonstrate that it is a most powerful agent, and one that should be used with care.

Rabbits, in whose veins were injected from 1 to 2 grammes of the salicylate of soda, died after two or three of such injections, death being preceded by extreme dyspnœa and convulsions.

One case was reported of an old man, who died after administration of the drug in large doses, and in whose case, a suspicion at least arose, as to whether his death had not been produced by the medicine. The effects of the remedy on the temperature of animals were almost nil. In animals without fever, the remedy given in large doses, only lessened the temperature, on an average, 9-10°.

Furbringer injected pus into the blood of sixteen dogs, to produce septic fever, and then gave the salicylates to test their influence in lowering their temperature. It was slightly diminished in 9 cases out of 16.

Prof. Sée therefore concludes, that the effect of the remedy in abating the temperature of the body, is only such as is produced by its disturbing influence on the circulation and respiration.

Its action upon the kidneys is most marked, and it is probable that its efficacy in lowering the temperature in rheumatism, is due to its action in eliminating through these organs, the *materies morbi* upon which the disease depends.

Ten minutes after the medicine is given, it may be discovered in the urine by adding a very weak solution of the perchloride of iron to that fluid, giving a violet color.

It is also eliminated from the system so rapidly by the kidneys, that to keep up its effects, the doses must be frequently repeated.

So powerfully does it stimulate these organs that those who discussed the subject at the Academy were generally of opinion that it should be used with great care where any kidney lesion exists; and, as a precautionary measure, we are recommended to test the urine before beginning the use of the remedy if there be the least suspicion of kidney disease.

Prof. Sée says on this subject: "If there exists any renal lesion it is necessary to prescribe the salicylic acid with great prudence, without which, even with a small dose, accidents may supervene."

The dose seems to be a matter of extreme importance; for, while the remedy is an active one, and may poison patients if given too largely, on the other hand, when given too sparingly, it may fail to produce any curative effect upon the rheumatism.

M. Sée gave his patients from eight to twelve grammes in the twenty-four hours. with the most happy results; while M. Oulmont, who gave only four grammes in the twenty-four hours, found no benefit from the remedy in the treatment of the same disease.

"If given in sufficiently large doses to produce its physiological effects (salicysm), we have inebriety, noises in the ears, and sometimes staggering."

We now pass to M. Sée's observations in "the treatment of rheumatism and gout by the salicylates."

After giving Stricker, of Germany, the credit of having first brought to the notice of the profession the use of these remedies

in acute rheumatism, and acknowledging that his residence on the other side of the Rhine has prevented his views from being sooner adopted in France, he details his experience by an analysis of the following cases:

There were in all 52 patients suffering from acute rheumatism, 44 in the hospital and eight in private practice.

Six grammes of the salicylate of soda dissolved in 200 grammes of water were given five times in the twenty-four hours.

To quote M. Sée's exact words as to the results, he says: "Now in all these cases the duration of attacks treated by the salicylates did not exceed three days. There was not one single exception.

"The age of the patient did not change the result in the least.

"In the case of two children, the one 8 and the other 12 years of age, I prescribed the remedy in doses of from 1 to 3 grammes every hour, and the success was complete in two days.

"Rheumatism existing two, four, eight, and fifteen days was arrested at the end of two or three days.

"This is what we generally observe:

"The cessation of the pain; this generally abates in from twelve to eighteen hours, and the phenomenon was constant.

"The articular inflammation disappears in from one to three days.

"Movement again becomes free and easy by the third day.

"I have seen patients whose inferior extremities had been entirely immovable, get up at the end of two or three days."

On the necessity of continuing the treatment after the patient is apparently well, M. Sée says: "Nevertheless the treatment cannot be considered as complete, unless it be continued for ten or fifteen days at least; without which a relapse is inevitable. The reason of this is the rapidity with which the remedy is eliminated from the system.

"I sometimes suspended the treatment on purpose; and when the relapse occurred, I prescribed anew the same medicine, and the same effect followed as at first.

"I sometimes repeated this experiment two or three times on the same patient.

"I will conclude by saying that relapses never occur when we continue the treatment."

On the influence of salicylic treatment in the cardiac complications of rheumatism, M. Sée observes:

"Does the salicylic treatment exercise an influence favorable or unfavorable on the development or course of the complications and accompaniments so frequent in acute articular rheumatism?

"In those who entered the hospital in the three first days of the disease, I have not seen developed a single case of inflammation either of the pericardium or endocardium; and it may be logically inferred that, if the remedy 'strangles' the disease, we anticipate the invasion of the membranes of the heart."

He acknowledges, however, that the immunity from heart disease in the cases that he treated, is not corroborated by the German physicians who used the same remedy; but he thinks the reason for the difference is owing to the vacillating manner in which the latter employed the medicine at the outset.

In those patients who, from long continuance of the complaint before the treatment was begun, or from a previous attack of the disease, had already cardiac lesion, no influence seemed to be exerted by the salicylates as far as such complications were concerned.

M. Sée closes his remarks on the results of the salicylic treatment of acute rheumatism, by contrasting them with the records of 108 cases treated by the ordinary method now in vogue.

"Of these 108 cases, 10 had a duration of from 5 to 15 days; 58, from 16 to 20 days; 40, from 36 to 55 days, and upwards; therefore, 10 out of every 108 cases, get well in from 5 to 15 days, and 98 out of every 108, may expect their recovery on an average of 36 days."

Certainly if statistics are worth anything, these results are stupendous; in fact, nothing better can be desired.

In my interviews with M. Guéneau de Mussy, though I found him a warm advocate of the salicylates in rheumatism, his results had not been as flattering as those of M. Sée.

Chronic Rheumatism.—Though the number of cases recorded by M. Sée of this type of rheumatism treated by him, are not sufficiently large, perhaps, to warrant his enthusiastic deductions,

yet, in view of the unsatisfactory character of the results that we generally obtain from any hitherto known remedies for the treatment of this disease, the results will certainly gain for his assertions a careful hearing and a disposition to test their accuracy.

The remedy was prescribed in the same dose as for the acute form of the disease. M. Guéneau de Mussy gives ten grammes three times a day of the salicylate of soda.

M. Sée says:

"My expectations were realized in a most happy manner. The attack disappeared exactly as in acute articular rheumatism, at the end of three or four days.

M. Bouchard has succeeded in four old men in the same happy manner.

"A patient who had had general chronic rheumatism for eleven years, confining him to his bed for from four to six months of each year, after six days' treatment was able to leave the hospital, all his joints unaffected.

"In five private patients, I observed exactly the same phenomena; the tumefactions of the joints which had existed for several months, and in one for three years, disappeared at the end of six or eight days' treatment.

"The medicine was kept up for a month."

Of course M. Sée does not claim these brilliant results in patients whose joints have undergone extensive organic changes from the ravages of this disease; but even in these, sub-acute paroxysms, to which they are so liable, can be promptly relieved by salicylic treatment.

Gout.—In the application of this remedy for the treatment of this disease, both in its acute and chronic forms, M. Sée's observations claim entire originality.

Not only do all the painful and inflammatory symptoms disappear, but also the chalky deposits about the joints are absorbed, and patients who have been such sufferers, that life had become a burden, walk forth after a few weeks use of the remedy, restored anew to health, and freed from one of the most painful disorders to which the human family is subjected.

Lumbago and Sciatica.—The fact elicited from the discussion

of the therapeutic effects of this remedy at the Academy, were somewhat conflicting as to its efficacy in the above diseases; but the opinion prevailed that as the cause that produced them was often rheumatic in character, it should always be given an early trial in their management.

Typhoid Fever.—From the known properties of the drug in arresting septic changes when applied locally, as well as on account of its reputed value in lowering the temperature of the body, great hopes were entertained that in it we should find a valuable auxiliary to our other modes of treating this most formidable disease.

But most of those who took part in the discussions at the Academy of Medicine, were not enthusiastic as to the results that they had attained.

M. Sée took the ground that the medicine is not an antipyretic in the general acceptance of that term, and that the remedies given by the stomach, with a view to their acting antiseptically upon a portion of the intestines, so remote as that effected in this disease, could not be relied upon.

Neuralgia.—M. Sée found the drug act as a decided anodyne in most nervous diseases, and used it with success in a number of cases of the above disease.

He often substitutes it for the different preparations of opium with the happiest results.

W. S. CALDWELL, M.D.,

PARIS, October, 1877. *Of Warren, Ills.*

Reviews and Book Notices.

THE EAR: ITS ANATOMY, PHYSIOLOGY, AND DISEASES. By Charles H. Burnett, A.M., M.D.; Henry C. Lea, Philadelphia, publisher.

The author of this work may be congratulated on having accomplished the task of presenting to the profession, clearly and concisely, the present aspect of otology.

It is a more than ordinary pleasure to review a book in which

there is so much to be commended and so little to be criticised, as in this.

Especially is this so in this case, since, until so recent a date, the field here covered was characterized by noticeable absence of any reliable or satisfactory information.

The anatomy and physiology, as here presented, give the reader the benefit of the most recent investigations in both, and prepare the way satisfactorily for the pathology, therapeutics, and surgery which follow.

In addition to imparting the latest reliable information, he has sought to utilize well-known facts, by showing their practical application—rather than to group together vague uncertainties, for the sake of supposed novelty. Where he is not convinced of the practical value of proposed methods of treating disease, it is frankly stated, and the reader is left to draw his own conclusions.

Regarding the non-suppurative inflammations, especially the chronic form, involving the middle ear, one could have wished that the author might have felt himself justified in speaking more confidently as to treatment and prognosis. Since these affections have been distinguished from so-called nervous deafness, and been assigned their proper place among diseases of the conducting apparatus, the results of treatment have been more satisfactory, but our prognosis still savors of the doubt that we have been so long accustomed to feel regarding them, and this has a tendency to restrain our efforts in their behalf.

Whilst, in some respects, the author's experience has seemed to differ from that of other aural surgeons, his position is so presented as to challenge respect for it from those who may feel that they must, though reluctantly, disagree with him as to some of the views held.

The article on suppurative affections gives additional urgency to the reasons so often adduced why they should not be neglected in the future, as they have been in the past, notwithstanding the disastrous, and sometimes fatal results, which have followed neglect or improper treatment of them.

The course of treatment advised is, in the main, wise and judicious, and is the result of intelligent observation of the effect of such treatment.

The section on deaf-mutes and partially deaf persons shows a step forward and in the right direction. It may safely be assumed, as stated, that the statistics regarding the deaf and dumb are greatly wanting in accuracy, and our conclusions having so long been drawn from fallacious premises, have been and must be erroneous.

The defects which prevent hearing, and thus produce muteness, are so much more frequently acquired than congenital, and are so often remediable, that it is to be hoped that greater efforts may, in future, be made to remove the cause of this affliction, instead of limiting our work to trials to reduce the resulting disadvantage, and to treat more frequently and more successfully the conditions on which deafness and consequent muteness depend.

The publisher of the work has issued it in a form worthy of a book that is destined to do so much good and so little harm.

S. J. J.

PUBLIC HEALTH REPORTS AND PAPERS, Vol. III. Presented at the meetings of the American Public Health Association in the years 1875–1876.

This is a collection of essays read before the American Public Health Association, at its annual meeting in Boston, September, 1876. They treat of various topics in which sanitarians are supposed to feel an interest. As might be expected, the comparative value of the different papers is very unequal — some of them being quite interesting, while others form the most commonplace kind of "padding." In this connection it may be observed that the bulk of the present volume is far less than that of its predecessors; and it is to be hoped that the future volumes may experience a still greater condensation. So far as the writers deal in descriptive effort, such as may be found in the essays which treat of the slaughter-house system of New York and Boston, their work is fairly well done. The statistical papers which, like Dr. Woodworth's, bring together a number of figures and estimates which are not easily accessible, are of value to those who desire such information. It is in the scientific and theoretical departments that the poverty of the volume is most conspicuous. It really seems hardly worth while to be at the

expense of thus publishing scraps of science, some of it of doubtful quality, which can be found more recently and freshly set forth upon the pages of the numerous scientific periodicals which are found on the shelves of every student. It is really no compliment to the intellectual equipment of the average health official to suppose that he is in need of the tardy and intermittent supply of knowledge which filters through such a series of volumes. In fact, it is one of the misfortunes of such a publication that it addresses itself to no large constituency of readers. For the leaders of science it possesses very little worth; and for the mass of uninstructed readers its contents are not presented in a sufficiently available form. For example, the admirable discourse on Food, by Dr. Flint, contains nothing which is not well known to the majority of educated people. It is, therefore, hardly worth while to fill so much space with utterances which in this volume are practically withdrawn from the classes to which they might profitably be addressed. A public health association which would expend its energy in the emission and wide circulation of tracts of a popular character, like Dr. Flint's address, would accomplish far more good than can ever be effected by the annual publication of a single heavy volume which nobody will read.

It is not pleasant to be obliged to speak thus of work which is the offspring of the purest philanthropy the world has ever seen. To lie in idleness, and to hear only the salt sea-waves rippling over the pages of Dr. Gibson's breezy essay, would be far more agreeable; but if the feelings are allowed to run away with one's reason, there is an end of scientific progress. A book for which so much is claimed demands more than ordinary scrutiny.

As already stated, the best features of the volume are its descriptive portions. Its contributors have a keen eye for filth—a sharp nose for sewer-gas. But as for any attempt to penetrate to the deep underlying causes which control the origin and the prevalence of disease, it scarcely appears. Knowing little, apparently, of these great world-causes, and of the wonderful system of checks and counter-checks in which such causes play so conspicuous a part, these gentlemen very naturally turn for relief to artificial, human institutions. Ignorant of natural law,

they would have us seek refuge under the wing of the immaculate police-justice, and they call loudly for fines and for legal processes, with which to "stamp out" disease. Some of our sanitarians, indeed, seem never to be thoroughly happy unless they can be hauling some one before the courts, and can parade a list of punishments for constructive offenses longer than the moral law. In pleasing contrast with this style is the excellent paper on Vaccination, by the distinguished President of the Association, Dr. Elisha Harris. The statesman-like way in which he treats this difficult subject is above praise, and stands in delightful opposition to the methods of the ordinary official. And yet Dr. Harris does not penetrate to the bottom of his subject, and fails to make clear the reasons which have hitherto prevented the success of every effort in this country to imitate the universality with which vaccination is performed in Europe—reasons which are inherent in the nature of our political and social institutions, and which produce difficulties that can only be overcome by a radical and far-reaching change in these institutions. Before that change is undertaken, it will be surely worth while to inquire whether the game is worth the candle. It is this neglect to "think things through" to their ultimate logical consequences which vitiates the writings of so many of our most enthusiastic sanitary reformers. They are very apt to take under consideration every thing but human nature, or some other equally important factor in the problem of sanitary administration. There is something sublime about the innocence with which the average sanitarian, on discovering some great abuse which human law has failed to abate, tarries not to ask why despotic statutes have become a "dead letter," but straightway lifts up his voice, American fashion, and cries for more laws and for a more stringent despotism. This carelessness relative to personal liberty is the more inexcusable since the great principles which underlie all these vexed questions of sanitary administration have long ago been thought out and fought out on another field. But too much of our sanitary legislation has been the hastily begotten offspring of panics and emergencies; and, like all such legislation, is not adapted to the ordinary conditions of mankind. There ought to be a statute of limitations to secure the self-

extinction of such dangerous laws within a definite period. But there is nothing of the kind, and our only practical mode of deliverance lies in the common sense of the community, which sooner or later, in every free country, forces injudicious enactments into a "dead letter" obscurity. Unfortunately, however, this does not remove such laws from the statute-book; consequently, whenever any little blind giant wishes to achieve a cheap notoriety by swinging a big club, he is sure to find one ready made for his hand. Here will be found a large field of usefulness for our State Boards of Health. They will do good service if they will wisely review our sanitary legislation, and will thoroughly prune away everything incompatible with reason and justice.

Considerations of this kind seem to have occupied the mind of Dr. Billings, who has contributed an essay on The Rights, Duties and Privileges of the Community in Relation to the Individual.

He expresses the opinion that the time has come for the evolution of the Sanitary Lawyer. I would suggest the need of something even higher — the Sanitary Statesman. Experience shows — and the volume now under consideration is rich in proofs of the fact — that the average doctor and the average legislator cannot be trusted with the production of sanitary laws for the community. The problem, though simple enough, seems to be beyond the grasp of the ordinary intellect. It is hard to convince your thorough-going philanthropist that with the very best of intentions he may be sowing the seed of unnumbered evils. But all history is full of similar examples; and the worst despotisms have often been the work of the best of men. These sanitarians will bear watching; and while we thank them for the good they do, they must cheerfully yield their work to criticism if they would retain the respect and the sympathy of the profession from which the greater number of them came.

H. M. L.

BOOKS AND PAMPHLETS RECEIVED.

Transactions of the New York Pathological Society. Vol. II. Based on the proceedings of the year 1875 and, largely supplemented from the records of 1844–1877. Edited by John C. Peters, M. D., President Medical Society County of New York. New York: William Wood & Co. 1877. 8vo.; cloth.

Transactions of the International Medical Congress of Philadelphia, 1876. Edited for the Congress by John Ashleman, Jr., A. M., M. D. Philadelphia: Printed for the Congress. 1877. 8vo.; cloth, pp. 1153.

Transactions of the Medical Society of the State of Pennsylvania at its Twenty-eighth Annual Session, June 13, 1877. Vol. XI. Part 2. Philadelphia: Collins & Co. 1877. Paper, 8vo.; pp. 830.

Materia Medica for the Use of Students. By John J. Biddle, M. D., etc. Eighth Edition. Revised and enlarged, with numerous illustrations. Philadelphia: Lindsay & Blakiston. 1878. 8vo.; cloth, pp. 462.

A Compend of Diagnosis in Pathological Anatomy, with Directions for Making Post-Mortem Examinations. By Johannes Orth. Translated by F. S. Shattuck, M. D., and George Kraus Sabine, M. D. Revised by Reginald Heber Fity, M. D., with Numerous Additions from MS., Prepared by the Author. Sole authorized English edition. New York: Hurd & Houghton. Boston: H. O. Houghton & Co. Cambridge: The Riverside Press. 1878. 8vo.; cloth.

Modern Medical Therapeutics; a Compendium of Recent Formulæ and Specific Therapeutical Directions from the Practice of Eminent Contemporary Physicians, American and Foreign. By George H. Napheys, A. M., M. D., etc. Fifth edition, enlarged and revised. Philadelphia: D. G. Brinton. 1878. 8vo. cloth; pp. 600. Cloth, $4; full leather, $5.

The Action of Medicine. By Isaac Ott, A. M., M. D., etc., etc. With twenty-two illustrations. Philadelphia: Lindsay & Blackiston. 1878. 8vo.; cloth, pp. 168.

The Physician's Hand-Book for 1878. By William Elmer, M.D., and Albert D. Elmer, M.D. New York: W. A. Townsend. 1878.

Diseases of the Nasal Cavity and Pharynx. Translation from the German of Dr. Carl Michel, of Cologne on the Rhine. With an introduction by E. L. Shurlyan. C. C. Yeaman. First American edition. Detroit. 1877: 8vo.; paper, pp. 109.

Fourth Biennial Report of the State Board of Health of California, for the years 1876 and 1877. Sacramento State Office: 8vo.; cloth, pp. 92.

Lecture 1: Clinical Lectures on Surgery. By J. H. Pooley, M.D. (Reprint from the *Ohio Medical and Surgical Journal.*)

Pyæmia and Septicæmia. By B. A. Watson, M.D. Reprint, *New York Medical Journal*, October and November, 1877.

Report of Cæsarean Section after Seven Days' Labor, with some Comments upon the Operation. By Edward W. Jenks, M.D. Reprint from *The American Journal of Obstetrics and Diseases of Women and Children.* Vol. X., No. IV.; October, 1877.

Mechanism of Joints. By Harrison Allen, M.D. Extracted from the Trans. of the International Medical Congress. Philadelphia: September, 1876.

The Localization of Diseased Action in the Œsophagus. By Harrison Allen, M.D. Reprint from the *Phila. Med. Times.*

Note on the Anatomy of the Perineum. By Harrison Allen, M.D. Extracted from the Trans. College of Physicians of Philadelphia. Third series, vol. II.

Third Annual Report of the Executive Committee of the Asylum at Walnut Hill, Hartford, Conn., at their Annual Meeting, Oct. 8, 1877. Also petition to the Legislature.

Condensed Statement of Mortality in the City of Chicago, for the weeks ending, Oct. 13, Nov. 3, Nov. 10, Nov. 17. O. C. De Wolf, Commissioner of Health; H. P. Wright, Registrar of Vital Statistics.

Summary.

I. Practical Medicine.

Intra-uterine Vaccination.—Bollinger (*Allg. Wiener Med. Zeitung*). In a paper on variola and vaccina (in Volkmann's series of clinical lectures), Prof. B. mentions a fact hitherto little known, but well confirmed by Reiter's excellent experiments, viz., that a vaccine virus, even in the dilution of one part to 1600, retains its specific efficiency, provided it is offered a large surface to act upon (such as that created by a vesicant). He also affirms that the blood is the agent through which all parts of the body are infected with the virus. From these facts the lecturer infers that the fœtus, which has been impregnated in utero with the virus, will possess immunity against vaccine, or variolous virus, for some time after birth. He therefore urges the re-vaccination of women in the eighth month of pregnancy. In cases where this re-vaccination is successful, the infants would be protected from their birth against one of the most dangerous of diseases. And where the re-vaccination was not successful, B. considers it worth trying to render the fœtus in utero secure, by subcutaneous or intra-venous vaccination of the mother.

Hereditary Migraine of Thirty Years' Standing Cured by Static Electricity.—Dr. Hache. (*L'Union Médicale*, Oct. 4, 1877.) M. X——, born of a gouty father and dyspeptic mother, suffered during childhood from great gastro-intestinal irritability. Thanks, however, to good management, he acquired robust health and a good constitution. But from early childhood he had been affected with headaches, which have been the torment of his life.

The attacks, extremely painful, have nearly always been

connected with digestive troubles, accompanied with vomiting of food or bilious matter, and lasted from twelve hours to two days. They returned almost every week, under very diverse influences, change of diet, or of the hour of eating, cold, moral emotions, etc., etc. Nevertheless, repose of mind, residence in the country or by the seaside, travels, etc., diminished the attacks, and prevented their occurrence for some weeks.

Such was the situation of M. X—— until the age of 45 years. Engaged in important financial business, which demanded assiduous labor, and entailed great responsibility, he has been obliged to bring to bear great moral energy to overcome his neuralgic attacks, when he could not give up business. Happily, vigorous exercise, fencing, the chase, and horsemanship, which have occupied his leisure hours, have developed his muscular vigor, and neutralized the neuralgic predominance.

In 1867, to the habitual sufferings, were added a vague rheumatism, frequent furuncular eruptions, and an obstinate granular pharyngitis. The waters of Aix-les-bains were advised, with benefit to the secondary troubles, but the migraine remained unaffected. It was even complicated during two years with an acid gastralgia, rebellious to all calmatives, requiring the constant use of gaseous alkaline waters and charcoal, with an exclusively animal diet.

In October, 1875, Dr. Arthuis was consulted. After diminishing the gastric symptoms with wine of pepsine, he recommended, for the general treatment, the use of static electricity, which has been his special object of study for eight years.

M. X—— received twenty-five daily applications of fifteen minutes each; then for three weeks, every two days; and finally, every third day; the total number of electrizations being forty.

After the fifteenth sitting, he had a most violent attack of migraine; but this was the last. At the same time with the hemicrania, the gastric symptoms ceased gradually, and all food was well borne. Sometimes still, at long intervals, a painful point is felt, limited to a small surface of the head; but the suffering, of slight duration, is speedily moderated by topical calmatives, and is not accompanied by any trouble of the digestive functions.

Gout, hereditary in the family, appeared in M. X—— in 1871, and second time last spring, with medium intensity and without extending beyond the articulations of the foot.

It is nearly two years since treatment, and the benefit remains, although M. X—— has had an excess of business, and moral emotions have not been spared him.

The cure of the double affection may then be credited to the use of static electricity, of which Dr. Arthuis has already made so many happy applications to therapeutics. L. W. C.

EARLY SIGNS OF PHTHISIS.—Dr. Haenisch (*Deutsch Arch. f. Klin. Med. and Annales de la Soc. de Méd. de Ganel*) has studied the movements of expansion of the chest in consumptives, by means of the stethograph, and concludes from his researches that in the normal state the expansion of the chest is equal for both sides. If both apices are diseased (catarrh of the small bronchial tubes, induration, cavities), the expansion is less. It is less on the diseased side than on the sound side; which fact may serve for diagnosis.

At the same time, according to him, there should be mentioned an important characteristic for the diagnosis of commencing tuberculosis drawn from the position of the clavicles; this has been shown by Aufrecht. In the normal state the acromial extremity of the clavicles is more elevated than the sternal end. If the acromial end is depressed, it signifies that the respiratory field on this side is narrowed.

If the acromial end is found on the same plane as the sternal end, if, moreover, there exist certain other suspicious symptoms such as anæmia, pains in the different portions of the chest, etc., an affection of the corresponding apex should be thought of. As a general rule the acromial end of the clavicle is lower on the diseased side than on the sound side, and lower also in the cousumptive than in healthy persons. L. W. C.

THE USE OF DIGITALIS IN DISEASE OF THE AORTIC VALVES.—Fothergill. (*British Med. Journal*, Oct., 1877.) The consciousness that many diseases of the heart can be treated with benefit, has now become general. Formerly the hopelessness

of affecting injured or disordered valves prevented early investigators of these diseases from making an effort at systematic treatment. Consequently, they confined themselves to palliative measures and the relief of symptoms, but the efforts which were first merely empirical guesses, have now become at once the most intelligent and complete of all our therapeutic measures. Digitalis, the most pronounced of all medicines in its action upon the heart, is now used with a clear conception of the results and mode of its action. Withering says of its use in the treatment of dropsy, "it seldom succeeds in men of great natural strength, of tense fibre, of warm skin, of florid complexion, or in those with a tight and chordy pulse; while, on the contrary, if the pulse be feeble or intermitting, the countenance pale, the lips livid, the skin cold, the swollen belly soft and fluctuating, or the anasarcous limbs readily pitting under the pressure of a finger, we may expect the diuretic effects to follow in a kindly manner." An experience of ninety years corroborates the opinion of this acute observer. Sir Henry Holland wrote (1839): "The enlarged and flaccid heart, though, on first view, it might seem the least favorable for the use of this medicine, is not so; at least we have reason to believe that in dropsical affections, so often connected with this organic change, the action of digitalis as a diuretic is peculiarly of avail." In spite of the prevalent opinion that hypertrophy was an undesirable growth of the heart, and that palpitation was due to a too powerful ventricular contraction, and therefore the heart's action should be lowered, accurate views have established themselves. This was chiefly due to the fact that digitalis, though a powerful diuretic in dropsy due to failure in the circulation, was not a diuretic when administered to healthy persons. For the relief comes through its effect upon the circulation, it stimulates the heart to more vigorous action, fills the arterial system with blood, causes a better blood pressure on the glomeruli of the kidneys, and consequently a better flow of urine. Our views, too, are modified as to palpitation and hypertrophy, for we now know that palpitation, when it is not a neurosal affection, is a laborious stroke indicating that the ventricle is overtaxed, instead of possessed of superfluous energy; nor is hypertrophy a disease *per se*, but a secondary growth to some obstruc-

tion of the blood flow, and a beneficent and compensatory change to be conserved.

Before the use of digitalis in disease of the aortic orifice is understood, we must glance at the pathology of aortic valvulitis. The function of these valves is closing the aortic orifice and preventing the regurgitation of blood into the ventricular channel on the aortic recoil. The ventricle, at each systole, throws so much blood * into the aorta, which, being elastic, is distended; the recoil of the aorta closes the aortic valves, preventing the reflux of blood which is then driven forward into the smaller arteries. When obstruction to the aortic blood flow is increased, two morbid processes ensue. First, the blood pressure is raised and the obstruction to the forward flow of blood on the ventricular systole is increased, and hypertrophy of the muscular walls follows. Thus the ventricle is enabled to cope with the increased blood flow, and can empty itself at each systole. Such is the simple hypertrophy of Bright's disease in its earlier stages; and from this cause comes most of the aortic valvulitis of advanced life; the aortic valvulitis induced by muscular effort is chiefly found in young men. We have, then, an obstruction to the blood flow, an increased blood pressure and a powerful ventricle; the result is the aorta is unduly distended at each ventricular systole. As the aortic recoil is in strict proportion to the amount of distention, the valves at the base are violently closed, which gives the accentuated aortic sound so significant of this condition. This powerful closure leads to valvulitis and a growth of connective tissue corpuscles in the valvular vela, but whether contraction of valves will follow cannot be seen. Distortion, however, is produced, and the valves either present an obstacle to the forward flow of blood, or they fail to arrest regurgitation, or these conditions may be combined. Hayden gives them as the most common of all combined valvular lesions.

When the valves become thick and stiff, and the process of chronic inflammation involves the base of each segment or cusp, and the growth of connective tissue leads to the contraction of the conus, stenosis is produced, and the ventricular wall has in its

* From 100 to 190 *grammes* (Herman's *Physiology*, translated by A. Gamgre. Page 62.)

contraction to overcome the resistance of stenosis of rigid valves, and of the normal blood pressure. In aortic stenosis when nature's efforts are sufficient for perfect compensation, a new equilibrium is achieved by hypertrophy of the ventricle not by retarding the ventricular contraction. So digitalis benefits, not by prolonging the systole, but by increasing the driving power until a normal blood-flow is secured. It may justly be urged that it produces contraction of the peripheral arterioles, raises the blood-pressure and creates an additional obstruction to the blood-flow ; but practically this is of no moment for it is not the blood pressure in the arteries which taxes the powers of the left ventricle but the tight stenosis against which it struggles.

In aortic regurgitation the semi-lunar valves shrivel along the free edges till they are insufficient to completely arrest the backward flow of blood. In this case hypertrophy is a means of arresting dilation rather than of increasing ventricular power; and we are too apt to assume the latter condition essential to evoke it. For hypertrophy does not always follow an obstruction to the flow forward of the blood on the ventricular systole. In anæmic systems and in chronic Bright's disease, dilatation is found instead, especially in women. It is found where there is no obstruction to the blood-flow, notably in hypertrophy of the left ventricle, so common in mitral regurgitation and in cardiac dilatation, the result of partial myocarditis accompanying pericarditis by which dilatation is limited.

When the aortic valves are rendered incomplete, the left ventricle is filled, not only by blood coming in from the auricle and pulmonary veins, but by that driven backward by the aortic rebound. The ventricle yields before this new force, and dilatation would now become marked did not hypertrophy arrest and limit it. In this connection occurs the most massive form of hypertrophy, the *cor bovina;* and we do not need the effects of digitalis, for the enlarged ventricle is already working ruin on the arterial walls both by its powerful contractions and over-distension by blood. This over-distension, which may be seen in the arteria centralis retinæ with the ophthalmoscope, produces chronic parenchymatous inflamm ation of the walls of the arteries and atheroma. (See article Philadelphia *Medical Times*, Aug.

7th, 1875, on Atheroma.) To administer an agent like digitalis, which, Balthazar Foster tells us, prolongs the diastole, would be injurious. What is wanted would be the antagonist of digitalis, which would lessen the diastole and limit the force of the ventricular sytole.

While this drug is harmful in the early, it is not so in the advanced stages of aortic regurgitation, for the arteries lose their elasticity so that the arterial recoil is diminished. This would be beneficial, were it not the force which feeds the nutrient vessels of the heart itself, consequently the hypertrophy of aortic regurgitation, though the most massive, is the least durable of all its forms. Mauriac gives the reason for this, and Balthazar Foster brilliantly illustrates it by showing that when an aortic valve is ruptured by violence, the duration of the hypertrophy depends on which valve is injured. If the torn valve have a coronary orifice behind it, the hypertrophy is brief, and the downward progress of the case is swift; but if the valves, behind which the coronary arteries spring, are the injured ones, the complete valves arrest, to some extent, the backward flow, and so the integrity of the muscular wall is maintained, and the hypertrophy is more lasting. (*Clin. Med. and Times and Gazette*, December, 1873.)

When molecular decay begins to cut down hypertrophy, it is assisted by impaired tissue nutrition, faltering of the ventricle, insufficient filling of arteries, and diminished coronary flow. The muscular stricture is being undermined, and the ventricle yields at once to the dilating force of the incoming current, and rarely hesitates. Here digitalis gives relief by exciting more powerful contractions and securing better circulation, doing away with the long diastolic halt with its tendency to ventricular paresis. At this advanced stage, it may delay the inevitable end, but more cannot be expected. Its use in double aortic disease, must be determined by the nature and indications of each case, especially by the condition of the ventricular walls. When the ventrical falters, digitalis may be safely resorted to, till then it is better withheld.

We may sum up as follows:

1. Digitalis is useful in aortic stenosis. By exciting a more

powerful ventricular contraction, it enables an equal bulk of blood to be driven through a narrowed orifice in an equal time, thus establishing a new equilibrium.

2. In the earlier stages of aortic regurgitation, with massive hypertrophy, it is harmful rather than useful,

3. In the later stages of aortic regurgitation, where the heart is failing from mural decay, and especially when intermitting, digitalis may be given with at least temporary advantage.

M. E. K.

THE TREMBLING IN PARKINSON'S DISEASE (paralysis agitans). —(*Progrès Medical*, Dec. 2, 1876; *Am. Jour. Med. Sci.*, July, 1877.) M. Charcot, in a recent lecture on paralysis agitans, particularly insists on the following points:

1. The name paralysis agitans is incorrect; paralysis cannot be applied where muscular power is preserved. Nor is the affix agitans correct, because the trembling is absent in some well defined cases. He proposes instead, the name *Parkinson's Disease*, after the English physician.

2. He maintains that, as a rule, the head and neck do not take part in the tremor which affects the limbs and trunk, that the oscillations are communicated from the trunk. To prove this, he fastened a small stick to which a feather is attached, to the forehead of the patient. When left alone, the feather was unceasingly agitated. When the movements of the upper limbs were arrested, the feather was still.

3. He insists that tremor is not a necessary symptom of Parkinson's disease, for it may be so slight as to be imperceptible to the patient; it may not appear for several years, or it may be entirely absent.

In some cases the stiff attitude, the extreme slowness of movements, the expression of hebetude, caused by immobility of features, the involuntary flow of saliva, and the interference with speech, have caused this affection to be mistaken for softening of the brain. Usually when this error has been made, the rigidity was especially marked on one side. The intellectual faculties, however, remain intact in Parkinson's disease.

M. E. K.

TREATMENT OF CATARRH OF THE BLADDER.—Prof. Edlefsen. (*Memorabilien XXI., No.* 6.) Injections of pure medicated water into the bladder are objected to by the professor. He only proceeds to such measures when internal remedies have failed. He agrees with Dittel in saying "that only in cases of the greatest necessity, should an instrument be passed into the bladder."

The professor recommends as a new remedy for catarrhal cystitis, chlorate of potash. The medicine, in sufficient quantity, can be introduced per os. In this way, while its curative effects on the bladder are obtained, the system is not overloaded with the drug. The professor further thinks that where it is required, chlorate of potash, in solution, could be injected into the bladder.

The unfavorable results of treatment in catarrh of the bladder, the author thinks, are owing to the treatment being based on incorrect suppositions, and to a timidity on the part of physicians in using certain active remedies. They either were renounced entirely or used at improper times. The most active remedies in this disease are bals. copaibæ and ol. terebenthinæ.

Very few cases of catarrh of the bladder, when treated from the beginning with either of these remedies, would long persist, and those cases which resist this treatment will most probably be due to some organic trouble of the bladder. The professor thinks that no remedy will so quickly cause an alkaline urine in a case of catarrh of the bladder to become acid, as turpentine and copaiba. These remedies diminish the catarrhal secretion of the bladder.

From considerable experience, the professor can conscientiously recommend the potassic chlorate. It does not interfere with the function of the stomach, is harmless, and where turpentine is contra-indicated, replaces it completely.

The mucous membrane of the bladder resembling the mucous membrane of the mouth and pharynx, the professor reasoned that he might expect the same results from the chlorate on the membrane of the bladder, as upon the membrane of mouth and pharynx, and experience proved that he was right. The effect of the remedy is not only to lessen the hyperæmia and the catarrh of the membrane, but it also hastens the healing of ulcers. Prof.

E. thinks it has a favorable influence on the growth of the epithelial coating.

His favorite prescription is: potass. chlorat., 15·0; aq. dest. 300·0. A tablespoonful every two or three hours.

The professor lays much stress upon the mode of administration. It is desirable to have a continuous action of the remedy. When the remedy can not be well borne, aq. laurocerasi is added.

II. Obstetrics.

Cephalotripsy.—M. Gillette. (*L' Union Médicale*, Oct. 2, 1877. M. Gillette communicated to the *Société de Médecine de Paris*, session of July 14, 1877, a case of cephalotripsy which he had just performed upon an Italian hunchback, in whom the antero-posterior diameter of the pelvis was narrowed at least three centimeters. The pregnancy was at full term, and the child was well formed. M. Gillette hesitated for some time, asking himself, before proceeding to crush the child's head, if it was not better, in place of sacrificing the child, to perform the Cæsarean operation in this deformed dwarf, incapable of child-bearing, and of doubtful utility to society. He conformed, however, to the general rule, and performed cephalotripsy—with regret, however.

M. Dubuc asked what was the fate of the woman after the operation. He asked this with the more interest, because in two cases which he remembered, cephalotripsy performed upon two rachitic women at *La Maternité*, was followed by the death of both, and the autopsy showed that the uterus was considerably torn.

M. Gillette observed that he had only been called accidentally to the patient, who was not in his service, and had lost sight of her the day after the operation. He could say, however, that the belly was not painful on that day, though the uterus was still large, and the pulse 160.

M. Leblond would not have hesitated between Cæsarean section and cephalotripsy in the case before them. The first of these operations is much less dangerous than is generally supposed; and the second, on the contrary, eight times out of ten, caused

the death of the mother. Moreover, if the Cæsarean operation has not, until now, been more successful, it is due to certain things neglected in the usual method of operating. For example, after extraction of the child, one should proceed as in ovariotomy, cleansing the parts carefully, and the edges of the uterine wound should be brought together by means of elastic sutures. Finally, what seems to prove the advantage of these precautions better than any theory, is the cases in which some operators have, without intending it, when beginning an ovariotomy, been led by circumstances, to perform on the same woman the Cæsarean operation. It would be easy to find examples of this kind in gynecological records, and the successes obtained are already very encouraging.

M. de Beaurais remarked that whatever the perfection of arrangements in the Cæsarean operation, it required still more, a certain skill in operations of this kind; it is necessary also to have skillful assistants. Now, as it is not always possible to realize at will these diverse conditions, it may be conceived how many physicians recoil before the idea of active intervention, which brings with it always a high degree of responsibility.

M. Durasiez added, that if the Cæsarean operation was not oftener performed, it was because the necessity was avoided in a large number of women, by provoking in time, premature delivery.

M. Camuset believes that there is good reason to resort, by preference, to this latter means of intervention; for, in a case he had seen of a little dwarf, who had reached full term, and was already in labor, the Cæsarean operation was promptly followed by death.

M. E. R. Perrin thinks that although ovariotomy and Cæsarean section are two quite dissimilar operations; the success which the former has achieved, should remove the antipathy which Paris obstetricians have for the Cæsarean operation, only the operation should not be done as it usually is, after the patient is exhausted by a prolonged and fruitless labor, and after several applications of the forceps and repeated tractions, which have been, at least, useless. If, on the contrary, the Cæsarean operation be performed at the beginning of labor, always with the authority of a

sufficient experience, the chances of success would be greater, for the patient would be free from the traumatisms she would have received from a more tardy intervention.

As to the chances of hemorrhage which the Cæsarean operation made in a manner prematurely, might cause the patient, one could not deny them; but what were they compared to the usual success of late operations?

Finally, are not the cases published from time to time, of non-fatal accidental deliveries, the result of violent injuries of the anterior abdominal region, of a nature to decide the most hesitating?

M. Gillette was very glad to see the general preference of his colleagues for the Cæsarean operation over cephalotripsy. If another case of the kind he had brought before them, should present itself, he would not hesitate in performing immediately, the Cæsarean operation without previously applying the forceps.

L. W. C.

ANO-PELVIAN VERSION.—M. Guéniot. (*L'Union Médicale*, Oct, 4, 1877.) At the session of the *Académie de Médecine*, of Oct. 2, 1877, M. Guéniot read a paper on a "method of version applicable in difficult cases," which the author calls the *ano-pelvian* method.

According to M. Guéniot, circumstances are not lacking where the accoucheur, although well aware of the difficulties and dangers of version, yet feels obliged to resort to this operation.

The most common case, without doubt, is that of a presentation of the trunk with a complication of uterine spasm, where derotomy and evisceration of the fœtus have been judged impracticable, or recognized as inefficacious. In such cases the use of the ano-pelvian process is perfectly indicated.

This process consists essentially:

First. In aiding, by the weight of the body, the insertion of of the hand to the fundus of the womb.

Second. In taking as a *point d'appui* for the traction to be made upon the fœtus, the pubic arch or the sacro-coccygian process, by the aid of a finger hooked in the rectum.

Third. In following, finally, the usual rule for podalic version.

According to this method of operating, after having introduced his hand into the vagina, the accoucheur advances his body into contact with the elbow with which he operates; then he presses with the body, with greater or less force, upon the olecranon process and posterior surface of the arm. The forearm thus pushed forward at the will of the operator, carries, in a mechanical manner, the hand into the uterus, almost without fatigue, in search of the breech. As soon as this is found—which is ordinarily much easier to do than to reach a foot or a knee—the finger is introduced into the rectum and used as a hook to make continuous traction, either on the pubis or on the sacrum, bringing the pelvis of the child into the cavity of the mother's pelvis.

The author sums up the advantages of the ano-pelvian method thus:

First. The pelvis of the child is generally easier to find than the feet.

Second. The hold which the pelvis or scrotum affords is of the firmest, and does not allow slipping.

Third. Traction being direct, the force used is all utilized.

Fourth. Whatever the direction of the traction, toward the dorsal or toward the abdominal region of the fœtus, its evolution may be effected.

Fifth. Finally, when the operator has failed by the podalic method, the ano-pelvian method still allows of bringing the version to a favorable termination.

M. Guéniot, who has used this method for ten years, is the first to publish it, though others have had recourse accidentally to direct traction on the breech, without attaching to it the merit to which it is entitled. L. W. C.

Normal Labor During Extra-Uterine Pregnancy. (*Jour. de Méd.*, November, 1877.) M. Labatut reports in the *Revue de Littérature Médicale*, the following case:

A woman had had a previous normal labor, and two years later had all the signs of pregnancy. At the end of five months, after progressive development of the abdomen, she had violent pains, but without result. After their cessation, she was sick for six months. Menstruation then reappeared, and the patient

enjoyed tolerable health; the tumor had subsided, and the abdominal pains had disappeared.

Five years later, a new suppression of the menses, attended with digestive troubles, took place. The patient, who was then 41 years of age, attributed these symptoms to "change of life." After several months, she was examined by Mme. Rampin, a midwife of Toulon, who diagnosticated pregnancy at the ninth month. She determined, at the same time, also the presence of a voluminous tumor in the right side, which, after hearing the history of the patient, she attributed to an extra-uterine pregnancy. Fifteen days after the examination, the woman was delivered naturally, after a labor of three hours, of a living child. After the labor, the midwife examined carefully the remaining abdominal tumor, due to the extra-uterine pregnancy.

The woman lived two years, and died in March, 1877, at the hospital at Toulon, of pulmonary tuberculosis.

At the autopsy, there was found in the right Fallopian tube, a fœtus at term, macerated, and enveloped in a thick pouch.

The case was, then, one of tubal pregnancy, dating back seven years; in spite of its presence, there had been normal conception and delivery. L. W. C.

THE PROPHYLACTIC TREATMENT OF PLACENTA PRÆVIA. T. Gaillard Thomas (*Am. Practitioner*, May, 1877), earnestly advocates the induction of premature labor, after the period of viability of the child, as the only known method by which the evils attending upon the last three months of utero-gestation, in this complication, can be avoided.

Fortunately, this condition is usually revealed by reliable premonitions, so that the uterus may be emptied of its contents before the vital forces of mother and child are exhausted by hemorrhage. By this means, the physician would be in attendance at the moment of cervical dilation, and consequently the moment of danger, he would be able, by hydrostatic pressure, to control hemorrhage, while at the same time the dilation of the cervix may be rapidly accomplished.

The only objection that can be urged is, that a child of less than nine months' intra-uterine life, does not have as good a

prospect of life as one arrived at full term; and this is invalidated by the fact that an eight months' child, depending upon the pulmonary respiration, has a brighter prospect for life than one in the uterus depending for aëration of its blood upon a crippled and bleeding placenta; while for the mother the safety is incomparably greater.

To those physicians who have been satisfied with the tampon until version has become practicable, and who, relying upon these excellent and efficient means, set their faces against the innovation here advocated, he urges a thoughtful consideration of statistics; accepting those of Simpson, Read and Trask in placenta prævia, the prognosis for the mother is about as grave as that of patients submitted to the capital operation of ovariotomy. For the child it is much graver. In view of these facts, he insists that the claims of any means which offers immunity, to any decided degree, from the ordeal of so dangerous a parturition and labor, should be most carefully weighed before being thrown aside. M. E. K.

III. Surgery.

Treatment of the Transverse Fractures of the Patella and the Olecranon.—Max Shede. (*Reports of the City Hospital at Berlin.*) It is a well-known fact that the fragments of a transversely broken patella are so seldom united by osseous substance that sometimes the possibility of this kind of union has been positively denied. Malgaigne relates that Pibrac set up a prize of 100 Louis d'or for the man who could show him a fractured patella united by a thoroughly ossified callus. Since that time the possibility of this kind of healing has been established unquestionably.

But this result is now-a-days attained almost as seldom as at the time of Malgaigne and Pibrac.

In consideration of the following facts: *first*, that in longitudinal and comminuted fractures of the patella, osseous union always takes place without difficulty; *second*, that the periosteum of the patella possesses such a power of producing osseous sub-

stance that almost the whole of the bone can be reproduced if it were lost by necrosis after a compound fracture; *third*, that stalactite shaped masses of luxuriating callus are found at the edges of separated fragments of the patella; in view of these facts there can be no doubt but that it cannot be any internal physiological cause, but only some external unfavorable conditions, which prevent the osseous union of a transverse fracture of the patella.

Longitudinal and comminuted fractures heal with osseous tissue, because the fragments remain in close apposition. The transverse fractures are united only by fibrous or ligamentous substances, because the fragments remain more or less separated.

Not one of all the numerous, often very ingenious, apparatus and bandages, proposed for the treatment of the above mentioned fracture, has kept up its reputation. Generally the surgeon is satisfied with obtaining a ligamentous union by a layer two or three "lines" broad. Nevertheless, the author does not believe that this unsatisfactory result is caused wholly by faults of our bandages not being able to achieve a complete and permanent coaptation of the fragments. Many of these bandages would certainly give better results if they could be applied immediately after the injury had taken place. But this is generally impossible, owing to great accumulation of blood within the synovial sac, and to considerable swelling of the surrounding soft parts. It is necessary to wait for the absorption of the exudation, and the appropriate treatment of the fracture cannot commence until the most precious time for the consolidation of fractures has expired.

In this way several circumstances come together to prevent the osseous union, to-wit: the considerable extravasation of blood, which is commonly accepted as protracting the consolidation of fractures, and the retarded coaptation of the fragments. The logical consequence of the above train of ideas must lead to an early operative evacuation of the fluid from the capsular cavity, as the condition of obtaining more favorable results. As it now is a well established fact that "puncture of a joint, if performed antiseptically, is absolutely free from danger," the author thought himself entitled to make the experiment.

The author has employed this treatment in five cases of transverse fractures of the patella. The puncture of the joint always proved entirely harmless. Nevertheless, the two first cases healed by a ligamentous union, although the interposed fibrous matter was very thin, and scarcely measurable. This unsatisfactory result was caused by failures in the after-treatment, which the author afterward learned to avoid. But the three last cases healed by a perfectly solid, osseous union. The treatment was as follows: He punctured the capsular cavity, and, if needed, the bursa patellæ, too, using a strong trocar, and all antiseptic precautions.

There is no difficulty in letting out the blood, which usually is fluid and mixed with synovia. The puncture is followed by injections of a three per cent. solution of carbolic acid; they are repeated until the fluid returns perfectly clear. He then takes out the trocar and closes the wound, placing a small piece of silk protective, and a little pad af salicylated cotton upon it.

The exact coaptation of the fragments is obtained by means of long, two or three centimeters broad, strips of adhesive plaster, which, at the same time, keep the salicylated cotton in its place. The upper strips, which are to draw the upper fragments downward, must cross each other on the calf and finally reach the anterior aspect of the leg. The strips for the lower fragment must encircle the thigh in a similar way. Then the whole extremity is tightly bandaged with flannel-rollers, the turns of which must be applied like a figure 8 bandage around the knee-joint, so as to strengthen the effect of the plaster-strips. At last, a plaster-of-Paris bandage is applied from the ankles to the hip of the completely extended extremity. Furthermore, the author thinks it necessary that this bandage should be renewed, during the first two or three weeks several times, at short intervals. Especially the first change of the bandage must take place before eight days have elapsed, the decrease of the œdematous swelling having made the bandage so loose, as to necessitate its renewal. The author, after eight days, always found a considerable space between the bandage and the limb, the plaster-straps quite loose, and the fragments a little distant from each other. A new bandage, easily corrected the deficiency. But the second and

third bandages will show the same condition after eight days, owing to a steady decrease of the swelling of the soft parts around the joint, and the atrophy of the leg from inactivity.

It is unnecessary to mention that the slightest flexion of the limb must be avoided while the bandage is changed. If it is shown by the second or third change of the bandage, that no further decrease of the joint in size has taken place, and that the fragments remain in close opposition, the new bandage can remain during the rest of time required for healing.

As a general rule, the duration of the treatment by plaster-of-Paris bandages, has been six weeks. The after treatment must have two objects in view: *first*, to protect the young osseous scar against violent injuries; *second*, to restore by degrees the flexibility of the joint. A false step causing the knee to be bent suddenly, would, at this period, most likely sever the fresh union.

None of the numerous varieties of elastic knee-caps or similar bandages, are suitable to this purpose. Only a solidly constructed apparatus, consisting of articulated splints, extending from the foot to the hip, will keep the patella safe, and assure the definite healing. This apparatus must be provided with a hinge opposite the knee, to permit a gradual flexion, which, commencing with 20°, is increased a little every four weeks. It is not advisable to let the patient walk without the apparatus, until four or six months have elapsed. In the meantime the flexibility of the joint must be acted upon by means of passive motions, massage, baths, douches. C. F.

THREE CASES OF ORAL ABSCESS.—T. Pauly.—(*Berliner Klinische Wochenschrift*, 1877, *N.* 22.)

I. *Idiopathic Retropharyngeal-abcess in a Baby.*—The author was called to see a baby in the state of extreme suffocation. Exploring with the finger he found on the right side of the pharynx behind the epiglottis, a fluctuating tumor of the size of a pigeon's egg. Fearful of a sudden aspiration of the pus into the lungs if he made a free incision, he preferred to make a mere puncture. The baby instantly felt relieved and respired with ease. When, in the afternoon, the contents of the abcess had increased again, he opened it thoroughly with a ten-

otome and evacuated the pus through the mouth over the tongue, having bent the head of the baby forward.

II. *Abcessus glosso-epiglotticus.* — A baby three months old had difficulty in sucking. Examining with the finger the doctor found an abcess between the tongue and the epiglottis. Having at first employed a trocar, the cavity was filled again, whereupon he lanced thoroughly with perfect success.

III. *Abcess in the Tongue.*—A farmer, 17 years of age, suffered from difficulty in swallowing caused by an abcess in the tongue about an inch above the ligamentum glosso-epiglotticum. The diagnosis could be made by means of the laryngoscope. He recovered after incision. C. F.

EXCISION OF THE KNEE JOINT, WITH TRANSVERSE DIVISION OF THE PATELLA.—R. Volkmann. (*Deutsche Medicinische Wochenshrift*, 1877. N. 33.) During the last three years, the author has performed twenty-one excisions of the knee joint, and lost only one patient, a child, which died of tubercular meningitis, three weeks after the operation. He justly points to the importance of combining the total extirpation of the fungous or tubercular capsule with the excision of the diseased parts of the bones. The extirpation of the whole capsule necessitates for all joints a somewhat larger division of the soft parts. For the shoulder, elbow and hip joints, the longitudinal incision will do, but for the knee joint the author thought it necessary to devise another incision, which, while it permits the accurate removal of the capsule and the surrounding fungous tissue, would, at the same time, preserve the integrity of the quadriceps femoris. For this purpose he cut across the middle of the patella, divided the latter by the saw into equal halves, and, after having completed the excision in the usual way, he united the two halves of the patella by means of cat-gut sutures. This method has, in several cases, proved very useful. For very extensive excisions and in case of unusually great infiltration of the soft parts he recommends an H-cut. If the pieces are scrupulously coaptated by cat-gut sutures, the patella will become quite firm in fourteen days. The surfaces of the epiphyses must be united by two cat-gut sutures. If the patella is adherent to the condyles of the femur, it must be detached with the chisel.

The author relates four cases operated on by the above method. In all, the disease had reached such an extent as not to allow a favorable prospect for a good result.

In three of these excisions, the patella could be left entire, or only its cartilaginous surface had to be scraped off. In the fourth case there were three carious cavities filled with dead bone and yellow cheesy matter in the patella, of which only the external plate could be left. Nevertheless, the two thin plates healed firmly together without dislocation. The joints operated upon quickly consolidated and proved useful, in spite of the fact that considerable portions of carious bone had been removed in two cases. C. F.

PARENCHYMATOUS INJECTIONS OF ACETIC ACID IN CARCINOMA.—Th. Gies (*Deutsche Zeitschrift für Chirurgie*, bd. 8, p. 279). A man, 62 years old, had a glandular tumor under the horizontal branch of the lower jaw. The tumor was supposed to be a carcinoma following the extirpation of a small growth in the lower lip. The tumor was extirpated, and the microscope confirmed the diagnosis.

Some time afterwards, the patient felt pain in the tongue, owing to a carcinomatous ulcer in the left half of the tongue, not far from the epiglottis. The degenerated portion was excised after ligature of the arteria lingualis and division of the lower jaw.

Seven months later, two new tumors developed, a smaller one near the left border of the lower jaw, and a larger one below on the neck. The latter disappeared under treatment with ice, but the former remained stationary. A year after the tongue had been extirpated, a rapidly growing tumor developed in the neighborhood of the right submaxillary gland. The growth did not decrease in size when treated with ice, and it soon commenced to dislocate the trachea. A small piece of the tumor, taken out by the harpoon, proved to be carcinomatous by a microscopic examination.

The author then injected into the tumor, once every week, the whole contents of a Pravaz syringe filled with a solution of 1 part acid. acetic. glaciale to 3 parts of water.

Through the same puncture in the skin, he plunged the needle into different parts of the growth, emptying the syringe gradually,

so as to spread the contents through the whole tumor. Warm poultices were applied afterward. Great swelling soon followed. On the 10th day, he made a deep incision with a pointed knife, and inserted a drainage tube, through which an offensive, ichorous matter was discharged. After 17 days the discharge ceased, and at the end of four months, there remained only a small, hard tumor, lodged deeply in the tissues. Soon afterward the same treatment was applied to the tumor near the margin of the lower jaw, and to a new one in the left cheek, with a similar good result. A new tumor now presented itself below the left ear; it increased to the size of a hen's egg, was very hard, and showed, on micoscopic examination, a more abundant framework of connective tissue than did the former tumors. Injections again were resorted to, but, considering the greater firmness of this growth, the author injected the whole contents of a syringe two or three times daily. During eleven days, twenty-five syringes filled with the solution of acetic acid were injected. The injections into this tumor produced great pain, the former injections in the soft growths having been almost painless. On the twelfth day the incision was made. The suppuration lasted three weeks, and the tumor disappeared almost entirely.

A similar favorable result was obtained by the author in another case. A woman, exceedingly afraid of an operation, had a soft carcinomatous tumor in the breast. During 10 days a syringe-full was injected daily, and on the 11th day the incision was made. After a few weeks the suppuration had ceased, and four weeks later only a small painless tumor remained, as big as a nut, in the depth of the breast.

In both these cases, the author made the injections for the purpose of destroying the new formation through suppuration. For that reason he used solutions of acetic acid, strong enough to produce cauterization of the tissues.

He recommends paying more attention to this method than generally has been done, because it may be a very useful one in cases not amenable to operations; if it does not cure it it may, at any rate, restrain the rapid growth of the neoplasm. The author's cases are yet of too recent a date to form a definite opinion of the ultimate fate of the patients.

TREATMENT OF GOITRE BY INTERSTITIAL INJECTIONS. (*Journ. de Médecine, Nov.*, 1877.) In a review published in the *Annales des Maladies du Larynx et des Oreilles*, M. Cazalis studies the different modes of treating goitre, especially the method of Luton. This method is particularly applicable to parenchymatous and fibrous goitres. By this process, in carrying the iodine to the center of the tumor, Luton has often cured goitres otherwise incurable. He employs the ordinary hypodermic syringe, but it is best to have it gold or nickel-plated. The piston should fit accurately, so as to overcome the resistance of the tumor. Luton recommends the ordinary tincture of iodine, from 1 to 5 grammes, or the following: distilled water 40 grammes, tr. iodine 20 grammes, iodide of potassium 1 gramme; dose 15 to 40 drops. The solution should only penetrate the substance of the gland, and it is well to anæsthetize the part with ice or the ether spray. The veins should be avoided, and the introduction of air as well.

The symptoms vary according to the strength and amount of the liquid injected. Small doses produce only an uneasiness or slight smarting in the region of the neck. With stronger injections, more or less painful radiations are felt towards the jaw and ears. Sometimes acute iodism results, the pulse and the temperature rise, the neck swells, but the inflammatory accidents subside generally in two or three days, and there is felt in the interior of the gland a hard kernel which diminishes little by little with the gland. In order to render the pain and perhaps the irritation less, Heller adds 15 milligrammes of morphine to the injection. Suppuration is rare.

Although this method usually gives more speedy results than medical treatment, it often requires several months before definite results are obtained. It is often necessary to renew the injections. Morell Mackenzie, who has had a large experience with this method, renews the injections about every ten days. In this case it is best to make them at different points. If the goitre presents several lobes, they may be taken successively, although the injection of one may suffice. If the goitre is very large, two injections, some distance apart, may be made at the same sitting.

The vascular goitre should not be treated by this method. For

the fibrous goitre it is especially applicable, and Mackenzie has had 59 cases in 73 cases treated by this method. L. W. C.

DIPHTHERIA AND TRACHEOTOMY.—Kroenlin. [*Archiv für Klin. Chirurgie*, 1877, bd. xxi., Sept. 2.) In the first portion of the communication the author gives a statistical report of 567 cases of diphtheria, which came under the care of Professor von Langenbeck, from January 1st, 1870, to July 31st, 1876. Of the 567 cases, 539 were brought to the hospital with the malady, while 28 contracted it there, while under treatment for other diseases.

Of the 567 patients, 379 (or 66.4 per cent.) died, while 190 (or 33.6 per cent.) recovered. Another table shows that the number of cases of diphtheria has steadily increased with each succeeding year, while the rate of mortality has constantly decreased. In 1869, the mortality in 72 cases of this affection was 86.0 per cent. The reason for this fact is not understood.

Only eight of those cases occurred in patients between 18 and 41 years; the largest number (102 or 18.3 per cent.) being found among children three or four years of age. It may be considered, as a general rule, that the younger the patient the more unfavorable is the prognosis, and that tracheotomy has no influence to alter this fact.

Tracheotomy was performed in all cases of laryngeal stenosis, regardless of pulmonary complications. The operation was performed 504 times; of these, 357 (70.8 per cent.) died; 85 of those operated upon were infants under two years, 11 of this class recovering, the youngest being seven months of age. In cases of surgical interference, death generally occurred on the first or second day, while after the fifth day fatal terminations were seldom recorded.

The occurrence of 28 cases of diphtheria in patients under treatment for other surgical diseases at the clinique (having a mortality of 18, or 64.2 per cent.) demonstrated that the collection of large numbers of diphtheritic patients in the wards of a hospital during many years, has an injurious effect upon the salubrity of the institution.

In the second part of his work, Dr. K. attempts to settle

other questions upon the observation of 241 cases of which he possessed complete and minute records. In 46 cases there were false membranes upon, and ulceration of, the nasal fossæ, but not of the pharynx; all of these were subjected to operation because of great tracheal stenosis. Of the remaining 195 cases, 31 exhibited no impediment to respiration, and consequently were not operated upon. The mortality among those operated upon was 71.7 and 73.7 per cent. respectively, while of those not tracheotomised, but 32.2 per cent. resulted fatally — a fact which proves that the local manifestation of the disease in the respiratory tract constitutes a fearful complication.

In those cases where the respiration was not perfectly free after the operation, the mortality was 25.2 per cent. greater than where it was; the course of those cases, where large masses of croupous membrane were expelled, was very unfavorable. Twenty-two of the children were brought to the clinique in a state of advanced asphyxia; they were operated upon without anæsthetics; two recovered.

In 66 cases the canula was removed between the third and seventeenth day; in one case (owing to granulations) not until six months had expired; of these 67 cases, 16 (23.8 per cent.) snbsequently died (causes: collapse 1, diphtheritic nephritis 1, pneumonia 2, exhaustion, due partially to difficult deglutition, 12).

Obstruction in deglutition was observed in 42 cases. It occurred between the first and forty-fourth day, but had no relation to the operation; the mortality of this class was 61.3 per cent.

Diphtheritic exudation on the wounds after tracheotomy was recorded in 50 cases, of which 28 died; beside this an exanthema was occasionally noticed in the thorax (anterior and posterior), neck, and in the immediate locality of the incision; albuminuria also was frequently observed.

Tracheotomy (except in asphyxiated cases) was performed while the patients were thoroughly anæsthetised with chloroform.

Treatment: After various medicaments had proved unsatisfactory, the treatment adopted since May, 1864, has been the local application of chlorine water penciled upon the affected

portions of the pharynx every hour or two; a few drops of a diluted mixture (aq. chlorini 1 to aq. pura 3 parts) were introduced into the canula. Diphtheritic abscesses and suppuration of the submaxillary lymphatic glands occurred 5 times in 241 cases, and in one case suppurative mediastinitis.

A microscopic examination of the pus showed micrococci in abundance.

Intussusception Cured by Reduction.—Prof. Schillbach at Jena. (*Centralblatt für Chirurgie*, No. 37, 1877.) On the 31st of July, Professor Schillbach was called to see a boy, 13 years old, who, having a few days previously suffered from a slight diarrhœa, was suddenly seized with intense pain in the abdomen, and with vomiting. Those symptoms had lasted 24 hours in spite of all applied remedies. Besides great depression of the vital powers, Professor Shillbach now found some tension of the whole abdomen, but more marked on the left side and upward from the umbilicus. Here about two inches above and to the left of the umbilicus, he detected an oblong curved body one and a half inches in diameter and four to five inches in length, the boundary of the upper portion of which was well marked, but the lower margin, indefinite; on percussion this body gave a subdued resonance, the surrounding parts being decidedly tympanitic. A slight pressure on the tumor produced great pain, while the remaining portions of the abdomen were not sensitive; the inguinal regions showed slight resonance and some tenderness; at no portion of the abdomen were the bowels abnormally distended by gases. No evacuation of the bowels had occurred after the severe symptoms transpired; the vomiting had ceased since 24 hours; the pulse was 100 and of medium fullness; the temperature of the skin was not unusually high, the hands somewhat cool; slight thirst and no appetite.

As there were no alarming symptoms, for the night Professor Schillbach directed cold compresses over the abdomen, postponing until the next visit the diagnosis and appropriate treatment.

The next day (August 1st) the nausea returned, the symptoms otherwise being those of the previous day; exploration per rectum furnished only negative results, the finger on withdraw-

ing showing traces of excrements, an enema returned bloody water but no fæces.

The symptoms thus excluding the presumption of hernia, volvulus, diffuse peritonitis or compression by tumors, there remained but one diagnosis, viz., that of intussusception, which explained the discharge of bloody water, due to contusion of the mucous membrane in the process of invagination.

As the case was recent, with no evidence of diffuse peritonitis, and sufficient time had not elapsed for plastic adhesions, the Doctor was persuaded to try reduction of the intussusception. For this purpose he employed a flexible rubber tube, with apertures at the extremities, and a rubber-bulb syringe. Introducing the tube into the anus, and advancing it cautiously to the location of the tumor, he found a resistance, which was soon overcome by a stream of lukewarm water thrown against it; and then the tube, without much distress to the patient, was introduced sixty centimetres, when an examination of the abdomen showed that the tumor had entirely disappeared.

The remaining part of the day the patient slept at intervals, having no pain or other symptoms of illness, and at night the bowels discharged 1½ litres of offensive, bloody liquid, accompanied by flatus.

On the morning of the 3d of August, the patient experienced painful tenesmus, and discharged five or six scybala, with ½ litre of bloody fluid; the abdomen was slightly tender.

On the following day he had the first normal movement of the bowels, and subsequently convalescence progressed favorably.

IV. THERAPEUTICS.

QUININE EXANTHEM.—Prof. Köbner, of Breslau (*Berl. Klin. Wochenschr.*, May 28 and June 8), reports a case where a syndrome closely resembling scarlet fever resulted from even a small dose of quinine. The symptoms consisted of a chill, sometimes repeated, a feeling of precordial anxiety, nausea, vomiting, intense headache, high fever and angina, followed, after a few hours, by an erythematous eruption on the face, which spread rapidly

over the whole body. This eruption was attended by intense itching and burning, by slight œdema of the face and injection of the conjunctiva. The color disappeared for a moment under pressure. The angina affected only the posterior wall of the pharynx, the soft palate and pillars being normal. The symptoms abated, and desquamation began after a variable length of time, according to the amount of quinine taken. Three times within five months was the patient attacked in this manner.

Dr. Von Hensinger, of Marburg, reports two cases similar to the above, except that the eruption was confined to the face. Both patients were women; one of them had formerly taken quinine without inconvenience. M. E. K.

ON IODOFORM.—Lailler. (*La France Médicale*, Oct., 20, 1877.) EXTRACT FROM A CLINICAL LECTURE DELIVERED AT THE SAINT LOUIS HOSPITAL.

Iodoform is a compound of iodine, hydrogen and carbon, or the hydriodide of carbon, and was discovered by Sérallas in 1822. In 1834, Dumas gave it the name iodoform, because of the analogy it presented to chloroform and bromoform.

It is obtained by the action of an alkali upon an alcoholic solution of iodine, and it is a crystalline body in hexagonal lamellæ, of a brilliant lemon-yellow color, and a peculiar, penetrating and persistent odor, which is readily recognized when it has once been perceived. It is partially volatilized under the action of a moderate heat. While it is scarcely soluble in water, it is readily dissolved in boiling alcohol and ether.

Among the physicians who have carefully studied iodoform is M. Bouchardat. Upon several occasions he has called attention to this product, and has demonstrated that it contains 90 per cent. of iodine. He has likewise discovered a special procedure for obtaining it.

In 1860, M. Righini, of Navarre, of the Brussels Society of Medical and Natural Sciences, read a very complete manuscript upon iodoform, which was written in a rather exaggarated style.

It would seem that in France first iodoform was specially studied and employed in a systematic and sustained manner.

Thus, in 1853, Messieurs Moretin and Humbert presented to the Academy a work on the subject, which was followed by the inaugural thesis of M. Moitre of similar title. But, in spite of all these interesting publications, iodoform was neglected for several years.

In 1859, when I was the physician of the Lourcine Hospital, I began to employ it, and the favorable results obtained, determined me to make a wider application of its value. During my service of three years I had no reason to regret this course. Upon my arrival at the St. Louis Hospital, I had an opportunity to use it still more extensively, and to decide in the clearest manner as to its incontestable value. In order to be assured of this, it is only necessary to read the papers since published by Besnier, Demarquay, Féréol, Maillard, Nieszkowski and Petiteau.

What is the mode in which iodoform should be employed?

Up to the present time, its use as internal medicament has given results of little value, as the researches of M. Righini and myself clearly show. This is a question which has yet to be studied.

Its topical action is very marked in a twofold direction—it is both anæsthetic and promotive of cicatrization.

Its action as an anæsthetic, permits us to make use of it to relieve the pain of fissures of the anus, hæmorrhoids, ulcerations of the throat, ulcerative cancers, and in particular, those of the face, mouth, breast, and cervix uteri. The action of iodoform, in all these cases, is quite rapid. In order to use it to the best advantage, it should be reduced to a very fine powder, and be carefully applied to every part of the diseased surface. The simplest method of obtaining it in this form, is to dissolve it in sulphuric ether, and then permit the ether to evaporate, when it is left in the form of an impalpable powder. In certain regions, particularly that of the anus, it is well to associate it with other substances, cacao butter for example, as the suppositories thus made, facilitate the application of the remedy. In general, the employment of the powder only is preferable, and I will add, in this connection, that you may employ it fearlessly in considerable quantity, as I have never seen accidents from such a course. I have never, it is true, made use of very large amounts at one

time. But Demarquay, who has employed it in the treatment of a great number of wounds, *largâ manu*, has never had occasion to regret it.

The action of iodoform, by which it favors cicatrization, is quite as remarkable as its anæsthetic property. In general terms, it may be said that the substance modifies ulcers of every variety. It is often astonishing to note the rapidity with which, under its influence, favorable changes and cicatrization occur, in soft chancres, ulcerative buboes, mucous patches, and syphilitic ulcerations of all kinds. Phagedena is often arrested in its course by a few applications of powdered iodoform, and not unfrequently onyxis is completely relieved in a few days after its topical use, though the last named affection is well known for its rebellious character and its ordinary duration of several months.

You have seen the results obtained in my service in all the cases just described. For some time past I have attempted, with success, to treat, by the employment of this remedy, scrofulous ulcers, lupus and epithelioma. You can note the subjects of these various disorders in the wards, and the sensible amelioration of their condition which has resulted.

Under the influence of iodoform, inflammatory phenomena disappear, and granulations lose the flabby look which is characteristic of many scrofulous ulcers. In fact, it is often necessary to repress exuberant granulation by the employment of the crayon of nitrate of silver. The wound, thus modified, rapidly cicatrizes, and the progress accomplished in the space of one day only is often remarkable.

How does iodoform operate to produce these results? M. Féréol admits that, as a powder, it is inert; for myself, I believe that the iodine is the effective element, for, as has been said, the powder contains ninety per cent. of the latter.

I have hitherto referred merely to the value of the medicament. It remains for me to indicate the objections to its use. Iodoform has a most penetrating and insupportable odor, on account of which it is often necessary to abandon its employment, and, for the same reason, patients sometimes absolutely refuse the treatment.

It would be well to dispose of this objection. Renaut,

concurring with me in the belief that iodine is the active principle, concluded to make a compound of talc and iodine, which he termed "iodated talc," and with which various experiments were made by him in my wards. The results were fairly satisfactory, but much less perfect than those due to iodoform itself. It has also been thought that camphor in powder would serve as a substitute, but comparative trials have not been favorable to the use of the latter. Its odor, truly, is not disagreeable; but then it presents none of the properties of iodoform, does not modify the character of ulceration, nor act as an anæsthetic.

I have found nothing to replace iodoform, the latter having, in my judgment, more valuable qualities than inconveniences. Certain precautions are to be observed in its application. It should never be applied to other than perfectly clean wounds. Atomization of warm water will answer for the purpose of cleansing them; then they should be carefully dried, and the powder applied. The fineness of the powder permits of its entrance in all the anfractuosities of the ulcer. Once applied, Féréol advises to cover the wound with charpie, oakum, or diachylon. The dressing may be repeated daily, or twice daily, at the outset — progressively less frequent as cicatrization advances.

In order to better apply the iodoform to deep lesions, situated, for example, in the throat or uterine neck, I have devised a procedure, which I have experimented with for several days, and which has thus far given good results. It consists in dissolving one part of iodoform in ten of ether, and atomizing the solution with Richardson's apparatus.

By this means, the atomizing tube being curved, and of sufficient length, the jet of the spray can be easily directed upon the parts mentioned, and all the diseased portions at once covered with a more or less thick layer (according to the requirements of each case), of a fine and impalpable powder, which adheres to the surface much more intimately and permanently than by other methods.

To give you an idea of the extent to which the employment of iodoform has increased, I append some figures which indicate the

annual consumption of this product in the hospitals of Paris: In 1859, 250 grammes were used; in 1866, 600 grammes; in 1869, after the publication of the researches of Demarquay, Besnier, and Féréol, 20 kilogrammes; in 1873, the time of the siege, 33 kilogrammes; lastly, in 1875, 28 kilogrammes (about 56 pounds).

So you see this remedy has made its own way. It will remain in the arsenal of therapeutics, and render incontestable service when judiciously employed.

URETHRITIS PROVOKED BY ARSENICAL PREPARATIONS.—*Jour. de Médecine*, Nov. 1877.) M. Saint-Philippe describes, in the *Gazette Médicale de Bordeaux*, certain accidents to the urethra from the use of arsenical preparations. A patient of M. Saint-Phillippe, suffering with malarial fever, was given arsenic, of which he took only four milligrammes. At the end of some days, however, he was seized with symptoms of poisoning, vomiting, colic, diarrhœa, etc., and was obliged to suspend treatment. The day after he was attacked with urethritis, which was treated in the classical way, and lasted fifteen days. The patient declared that he had not been exposed by any veneraal act for more than two months.

Another patient, suffering with scaly affection of the skin, was given arsenic, but, by mistake, took double the dose prescribed, so that in eight days he had taken sixteen milligrammes of the medicine. The same accidents followed, the urethritis being treated as usual, and lasting about fifteen days. In this case, also, the patient had not been exposed by venereal acts. M. Saint-Phillippe believes, then, that it is rational to suppose that the arsenic, in being eliminated by the urinary organs, may produce the same accidents which it does in the digestive system. He believes the irritation to be toxic, rather than physiological, which accounts for its rarity in practice.

L. W. C.

FORMULA FOR NIGHT SWEATS.—Porcher. (*L'Union Médicale*, Nov. 6, 1877.)

Sulphate of Atropine	1 centigramme.
Extract of Gentian	10 "

Acacia q. s. to make 10 pills.

Dose, one or two a day for the night sweats of consumptives.

ANTI-ASTHMATIC ELIXIR. — Desnos. (*L'Union Médicale*, Nov. 10, 1877.)

Snakeroot	3 grammes.
Water	125 "

Boil until reduced one half, strain and add iodide of potassium, 6 grammes.

After cooling, add

Brandy	60 grammes.
Syrup of Opium	120 "

Filter. Dose two or three tablespoonsfull a day for asthmatics; the first before breakfast and the other between meals.

L. W. C.

Medical News and Items.

ORIGIN OF THE TERM SYPHILIS.—Upon this subject the *Louisville Medical News* of December 1, 1877, publishes the following communication from Dr. James Nevins Hyde, of Chicago:

"In your issue of the 3d instant, I find a paragraph, copied from the *London Medical Press and Circular*, in which it appears that Dr. L. P. Yandell, Jr., has offered a new theory as to the origin of the term syphilis. According to the latter, the first popular name of the disease was *morbus civilis*, i. e., the "citizens' or town disorder"—terms used "by the lower classes, and especially among the rustics." It is suggested the word *morbus* was dropped for the sake of brevity, and that the subsequent transformation of *civilis* into syphilis is not remarkable, in view of the fact that chancre was once spelled "shanker," and scrofula "scrophula."

"This quite ingenious and plausible explanation suggests the inquiry whether it can be sustained by the facts already known concerning the history of the word. We are led to ask, *what* rustics first employed the term in its original form? Certainly not those of the old Roman Campagna, for Hippocrates, Celsus and their immediate successors never thus designated the disease, although they had frequent need of a periphrasis for that purpose, and would surely have been careful to append the popular name had such existed. Even if they had failed to do this, such a popular term would have almost inevitably crept into the writings of such authors as Plutarch, Martial and Horace, all of whom refer to the disease in unmistakable phraseology.

"The truth is that the word syphilis never made its appearance in literature of any kind before Hieronymus Fracastorius, the Veronese physician, in 1521, wrote his famous poem in

which the herdsman of King Alkithous, named Syphilus, is smitten with the disease by Apollo, as a penalty for his offense against the god. According to G. Fallopia, the name was derived from the Greek words which are commonly supposed to explain the ignoble origin of the malady. Twenty-five years later, Fracastor employed the term in his second work upon the same subject.

"Now, since it is admitted that Fracastor first employed the word syphilis, it is fair to ask, if the word was not actually coined by him, whence did he borrow it? He was at the time one of the chief luminaries of the Italian school. Did he first hear the mis-pronunciation upon the lips of the Italian peasants around Verona?

"It may be safely concluded that the most illiterate of Italian rustics would never pronounce in such a manner as to change the sound represented by v into that of ph. He might, indeed, under some circumstances, convert ph into f, but his unconscious law of metastasis would never permit the reverse of this. The Italian of to-day spells syphilis *sifilis*, and transforms the initial ph of all words of Greek origin into f; but his *civile* of to-day is accepted from his Roman ancestors without change, and he has never suffered the loss of the v of his forefathers. Even the Frenchman, who has adopted the Greek ph in its original form, writes *sulfure* and *calife* for sulphur and caliph; while he and his southern neighbor have alike softened the b of *habere* and similar words, into the v of *avoir* and *avere*.

"There is a law to be observed even in the aberrations of the lips and tongue, which the English sailors demonstrated when they affectionately christened their 'Bellerophon,' the 'Bully Ruffian.'

"In short, while the natives of Southern Europe have again and again transformed b into v, and ph into f, it is altogether improbable that they have ever converted ph into v, and physically impossible for them to exchange v for ph, so that *civilis* in their lips could be represented by *syphilis*.

The letters y p h in syphilis point as unmistakably to its Greek origin, as its mucous patches to a primary lesion. Fracastor was, it is true, under the influence of the astrological ideas of the

physicians of his day; but he was an erudite author, and drew an eminently graphic picture of the disease as he saw it. He was quite capable of coining the word which he introduced into medical literature, and which, we trust, may survive the disease itself, but whether he coined or borrowed the term, its parentage in the Greek language is as distinct as the source of hereditary syphilis.

"And I am inclined to believe that my good friend, Dr. Yandell, will, after consideration, accept my conclusions."

LIST OF PERSONS WHO PASSED THE EXAMINATION of The Illinois State Board of Health, held at Chicago, November 1, 1877, fourteen candidates: James P. Pearson, Fairbury, Ills.; Herbert Wheeler, Grant Park, Ills.; Max. Muffas, Wheeling, Cook Co., Ills.; Elias Miller, Fairbury, Livingston Co., Ills.; Royal McShea, Owaneco, Christian Co., Ills.; C. C. Watson, Chicago, Ills.; Edward Armstrong, Northville, LaSalle Co., Ills.

The following were successful at a similar examination held at Cairo, November 15, 1877, forty-two applicants: D. L. Gebhart, Metropolis, Massac Co., Ills.; Julius C. Gebhart, Massac Creek, Massac Co., Ills.; A. R. Ransom, Grantfork, Madison Co., Ills.; R. P. Lightfoot, Carbondale, Ills.; D. C. Asher, New Burnside, Johnson Co., Ills.; John W. Jeffries, Sauer, Jefferson Co., Ills.; Thos. J. Green, Phillipstown, Ills.; E. H. Wheeler, Gillsburgh, Jackson Co., Ills.; John Keese, Dongola, Union Co., Ills.; John W. Ross, Fitts Hill, Franklin Co., Ills.; H. L. Burnett, Raleigh, Ills.; W. S. Harvey, Beverley, Adams Co., Ills.; Henry C. Buck, Olmsted, Pulaski Co., Ills.; Wm. P. Sutherland, Golconda, Ills.; Geo. W. Hendershott, Mill Shoals, White Co., Ills.; John Wm. Mott, Villa Ridge, Ills.; Ch. H. Cristoffe, French Village, St. Clair Co., Ills.

The following passed successfully the examination held at Galesburg, December 6, 1877,—eighteen candidates: Wm. S. Williamson, Rio, Ills; J., Parker, Ipava, Ills.; Z. T. Harvey, Brooklyn, Schuyler Co., Ills.; Boggs, M. C., Gerlaw, Ills.; F. F. Noyes, Ray, Schuyler Co., Ills.; Wm. Parker, Huntsville,

Schuyler Co., Ills.; Chas. M. Verbrees, Murrayville, Morgan Co., Ills.; Thos. A. Scott, Kirkwood, Warren Co., Ills.

At this meeting a resolution was unanimously adopted by the Board to the effect that the diplomas of the St. Louis Homeopathic College, of the Physio-Medical College and the Physio-Eclectic Medical College, of Cincinnati, Ohio, would not be recognized.

The following resolutions were also passed unanimously:

Resolved, That on and after July 1, 1878, the Board will not consider any medical school in good standing that holds two graduating courses in one year.

Resolved, That on and after July 1, 1878, the Board will not recognize the diplomas of any medical school which does not require of its candidates for graduation the actual attendance upon at least two full courses of lectures, with an interval of six months or more.

AT THE annual meeting of stockholders of the CHICAGO MEDICAL PRESS ASSOCIATION, held December 4, 1877, Drs. J. P. Ross, E. Ingals, and J. H. Etheridge, were elected to fill the vacancies created by the expiration of the term of office of Drs. Ross, Bridge and Etheridge. The Treasurer's report showed that the Association was able to sail along smoothly in spite of hard times and slow payments.

The Librarian reported that the collection contained to date 526 bound books, and about as many miscellaneous pamphlets; 75 reports of hospitals, asylums, etc.; 200 announcements and catalogues, and 6,400 copies of medical journals. The whole collection, with the exception of 70 books purchased, has been acquired by donation, and by exchange with the JOURNAL AND EXAMINER, and with the Library.

The system of cataloguing and indexing by cards has been introduced during the past year, and about 5,000 cards have been, so far, written and are now in use.

The system of circulation of journals introduced several months ago, has worked satisfactorily, and quite a number of members have availed themselves of its advantages.

BARLOW MEDICAL LIBRARY
742 NORTH BROADWAY
LOS ANGELES, CAL.

THE PHYSICIAN'S HAND-BOOK FOR 1878, by Wm. and A. D. Elmer, needs no further recommendation than the statement of its having attained the age of twenty-one years. It is a *minor* no more, and can well take care of itself.

The editors inform us of their intention to entirely re-write the next edition. We hope they will not materially change the character of a book which has proved so useful to the profession; but we would suggest they might leave out the list of diseases, and that of the remedial agents. The omission of these lists will be no loss to any practitioner, but lighten the book materially.

DR. LEWIS A. SAYRE, under date of Oct. 15, 1877, addresses a communication to the editor of the *Phila. Med. Times*, in which he refutes the charge of plagiarism preferred against him in the *St. Louis Clinical Record*, as follows:

Charge 1st. "Dr. Sayre's hip-joint splint was invented by Dr. Davis." To refute this I refer you to the "Transactions of the American Medical Association" for 1860, pages 505 to 508, and by referring to the Patent Office at Washington, "Synopsis of Specifications," No. 35,303, you will see that Dr. Davis took out a patent for his splint, which you will observe in the specifications is entirely different from mine, which was given to the profession, as well as its various modifications and improvements, as soon as tested and proved to be useful. I also refer you to my "Orthopedic Surgery and Diseases of the Joints," Appleton & Co., 1876, pages 260, 261, to prove the falsehood of this first charge.

Charge 2d. "Dr. Sayre's plaster-of-Paris jacket was invented and first applied by Dr. Bryan, of Lexington, Ky."

Answer. See my report on Pott's Disease, "Transactions American Medical Association" for 1876, page 585, where you will see full justice has been done to Dr. Bryan; also *Richmond and Louisville Medical Journal* for May, 1877, page 418; also my recent work on "Spinal Curvatures and their Treatment by Suspension and the Plaster-of-Paris Bandage," Smith, Elder & Co., London, Eng., 1877, page 14. Any honest man reading

these three references, I think, will never again repeat this charge.

Charge 3d. "Dr. Sayre's method of self-suspension in rotary lateral spinal curvature was invented by Dr. Benjamin Lee, of Philadelphia."

Answer. See my work on spinal curvature above referred to, Smith, Elder & Co., London, page 93. For fear that you may not be able to obtain the book in this market at present, I will quote the sentence on page 93 to which I refer:

"The late Prof. Mitchell, of Philadelphia, used to treat cases of lateral curvature by suspending them under the arms, and causing them to suspend themselves by the hands. But Dr. Benj. Lee, of Philadelphia, was the first person who caused his patients to practice *self-suspension*, by climbing up a rope which passed over a pulley and was attached to the patient's head by straps passing under the chin and occiput." I think this answers that charge.

Charge 4th. "Dr. Sayre's Lectures on Orthopedic Surgery were by Dr. Louis Bauer, formerly of Brooklyn, New York, now of St. Louis."

Answer. By referring to the preface of my book on "Orthopedic Surgery and Diseases of the Joints," Appleton & Co., New York, 1876, it will be seen that the book was published from stenographic notes of my lectures in Bellevue Hospital Medical College, session of 1874-75, taken at the time by Dr. Wesley M. Carpenter, of this city. Most of the lectures were upon cases presented at the time in the lecture-room, and which Dr. Bauer could never have seen, as he at the time lived in St. Louis. The statement is, therefore, too absurd to demand any further notice. The general charge of plagiarism in the last sentence quoted from the *Record*, not being *specific*, cannot be *specifically* refuted, but to it I make a general denial.

THE WARREN PRIZE.—The Warren Prize Committee, consisting of the visiting physicians and surgeons of the Massachusetts General Hospital, have awarded the prize of the present year, amounting to $371.41, to E. O. Shakspeare, M. D., of

Philadelphia, for an essay on "The Healing of Arteries after Ligation."

The committee also announce that the subject for 1880 will be, "Original Observations in Physiology, Surgery and Pathological Anatomy."

Essays should be forwarded to the resident physician, Massachusetts General Hospital, Boston, on or before February 1, 1880. The amount of the prize will be $400.

The conditions of the prize lately awarded were similar to those given in the announcement, the object, we understand, being to stimulate original researches. As evidence of the success of the plan to leave to the competitors the choice of a subject within certain limits, it may be mentioned that the number of essays presented was large. We learn that a dissertation on Pneumono-Dynamics and one on Certain Points on the Physiology of the Nervous System were highly praised by the committee for their merit. A third, on Bone, was much admired for the superb illustrations which accompanied it and the great labor which its prepararion evinced, particularly that portion devoted to Dentine.

THE ILLINOIS CHARITABLE EYE AND EAR INFIRMARY (cor. Peoria and W. Adams streets) has lately been enlarged by the erection of a three-story wing on the Peoria street front. This addition may be called the dispensary department of the infirmary, for its main part is fitted up for the reception and treatment of the out-door patients. The entrance from Peoria street leads by a small vestibule into a spacious reception room, where from one hundred to one hundred and fifty patients can easily be seated. The second floor is divided up in a room for the treatment of the ear patients, a room for the treatment of eye patients, and an ophthalmoscopic room. The treating rooms are large and high, supplied with warm and cold water; and many windows reaching from the floor to the ceiling, admit so much light from north and west, or north and east respectively, that the light is sufficient even on the cloudiest day. The dark room, in direct communication with the eye room, is provided with all the facili-

ties for ophthalmoscopic examinations, and large enough to allow eight persons to make such examinations simultaneously.

The third floor is given up entirely for an operating and clinical lecture room, with which a smaller room is connected for the accommodation of patients waiting for the operation, or to rest and recover from the effects of the narcosis after the operation. A large sky-light above the operating table, furnishes a beautiful light to perform the most delicate operations. A broad and easy stairway, broken by several landings, leads from the first floor to the top of the building. The operating room communicates by a hall-way with the second floor of the main building, on which floor the rooms for operative cases are located.

By this arrangement patients can most easily and safely be removed from the operating table to their rooms. The second floor also has a communication with the main building, for the use of the surgeons and officers of the infirmary. But the dispensary patients are strictly prohibited to enter the main building, whose quiet and cleanliness is thus not disturbed by the daily rush of a noisy crowd of patients.

In its present form, the infirmary is probably the completest and finest building of its kind in this country, and Illinois may well be proud of this charity.

THE STATE BOARD OF HEALTH AND ITS MEDICAL EXAMINATIONS.—We have taken pains to carefully examine the method pursued by the members of the Illinois State Board of Health in examining non-graduates in medicine who apply for a license to practice; and have also critically read the entire list of all questions proposed to such candidates on the printed papers. We felt that the profession at large was concerned to such an extent as to warrant the scrutiny, and, as a result, we have no hesitation in declaring that the tests are ample, and that the standard is such as would do credit to all the medical schools of the State.

ANNOUNCEMENTS FOR THE MONTH.

SOCIETY MEETINGS.

Chicago Medical Society—Mondays, Jan. 7 and 21.

Chicago Society of Physicians and Surgeons—Mondays, Jan. 14 and 28.

CLINICS.

MONDAY.

Eye and Ear Infirmary—2 to 4 p. m., by Prof. Holmes and Dr. Hotz.

Mercy Hospital—2 to 3 p. m. Surgical, by Prof. Andrews.

Rush Medical College—1:30 p. m. Medical, by Dr. Bridge.

County Hospital—8 p. m. Necropsy, by Dr. Danforth.

Woman's Medical College—3 p. m. Surgical, by Prof. Owens.

TUESDAY.

County Hospital—1:30 p. m. Medical, by Prof. Bevan; 2:30 p. m. Surgical, by Dr. Bogue.

Mercy Hospital—2 p. m. Medical, by Prof. Hollister.

Eye and Ear Infirmary—2 p. m. Prof. Jones.

WEDNESDAY.

County Hospital—1:30 p. m. Gynecological, by Prof. Fitch; 2:30 p. m. Ophthalmological, by Dr. Montgomery.

Mercy Hospital—2 p. m. Eye and Ear, by Prof. Jones.

Rush Medical College—4 p. m. Diseases of the Chest, by Prof. Ross.

THURSDAY.

Mercy Hospital—2 p. m. Medical, by Prof. Davis.

Rush Medical College—1:30 p. m. Neurological, by Prof. Lyman.

Eye and Ear Infirmary—2 to 4 p. m. Operations by Prof. Holmes and Dr. Hotz.

FRIDAY.

Mercy Hospital—2 p. m. Medical, by Prof. Davis.

County Hospital—1:30 p. m. Medical, by Prof. Ross; 2:30 p. m., Surgical, by Prof. Gunn.

Woman's Medical College—10 p. m. Ophthalmological, by Dr. Montgomery.

SATURDAY.

Rush Medical College—2 p. m. Surgical, Prof. Gunn.

Chicago Medical College—2 p. m. Surgical, by Prof. Andrews and Isham; 3 p. m., Diseases of the Chest, by Prof. Johnson.

Woman's Medical College—12 m. Gynecological, by Prof. Fitch; 3 p. m. Dermatological, Dr. Maynard.

Special Clinics daily, from 2 to 4 p. m., at the South Side Dispensary, and at the Central Free Dispensary.

For schedule of lectures at the colleges, apply to the college janitors.